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DEPARTMENT OF THE INTERIOR

U.S. BUREAU OF EDUCATION

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## LETTER OF TRANSMITTAL.

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DEPARTMENT OF THE INTERIOR,  
BUREAU OF EDUCATION,  
*Washington, September 27, 1915.*

SIR: The value of the schools, and especially of the schools for younger children, depends almost wholly on the ability, knowledge, and skill of the teachers. Like every other complex and difficult art, the art of teaching can be acquired only through careful training and the conscious application of underlying principles. The consciousness of these facts has given rise in all culture countries to schools maintained at public cost for the purpose of giving young men and women preparing for teaching such instruction in principles, methods, and devices, and such practice in their application as will enable them to begin the work of teaching with some degree of certainty of success. In this country such schools are called normal schools. Although the United States has done less for the preparation of its teachers than other countries in proportion to expenditures for education and to numbers of children in school, there are in this country 235 State normal schools, with a total attendance of about 89,537 students and an annual expenditure of \$8,970,377. These figures do not include municipal and private normal schools. A decade and a half ago appropriations for the support of these State normal schools were \$2,510,934 and the annual enrollment of students was 44,808. Because of the large expenditures for normal schools and a growing appreciation of the importance of their place in our systems of public education, there is an increasing general desire for some intelligent accounting of their organization and work. For this reason and for the purpose of laying a foundation for such detailed studies of many specific phases of their organization and work as will aid in such modifications and readjustments as may seem desirable, Dr. Charles H. Judd, director of the school of education of the University of Chicago, and Dr. Samuel C. Parker, dean of the college of education of the University of Chicago, both special collaborators in this bureau, have, at my request, made a general preliminary study of these schools and have reported the results of their studies in the accompanying manuscript. I recommend that this manuscript be published as a bulletin of the Bureau of Education under the title "Problems Involved in Standardizing State Normal Schools."

Respectfully submitted.

P. P. CLAXTON,  
*Commissioner.*

The SECRETARY OF THE INTERIOR.

## PREFACE.

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This study of the State normal schools of the United States was undertaken at the request of the Bureau of Education in the summer of 1914. The material upon which the study is based was furnished by the authorities of the State normal schools and of State departments of education in the fall of 1914, in response to a request sent from the Bureau of Education.

The plans for the bulletin were carefully organized by the authors working together. Chapters I and II and the concluding chapter were written primarily by Mr. Judd. The remaining chapters were written primarily by Mr. Parker. Each author revised his chapters, however, after they had been read and criticized by the other. As a consequence the bulletin presents a unified treatment of the whole topic. For the chapter on Administrative Control, Mr. D. R. Henry carried on in the spring of 1915 a rather elaborate study, based on an examination of the educational codes of all of the States and correspondence with many of the officers in charge of the normal schools in the States. Mr. J. B. Shouse rendered valuable assistance in connection with certain of the statistical parts of the study.

# PROBLEMS INVOLVED IN STANDARDIZING STATE NORMAL SCHOOLS.

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## Chapter I.

### INTRODUCTION: SCOPE OF THE BULLETIN.

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**Normal schools not now standardized.**—Normal schools differ from each other very widely in organization, in admission requirements, in courses of study, and in modes of instruction. The explanation of this lack of uniformity is to be found in the fact that normal schools have never been a part of the system of higher education evolved in this country. Normal schools have grown up in isolation. While the colleges have been in the closest touch with each other through the organization of entrance examination boards and accrediting institutions, while high schools have been brought together by standard definitions of units, normal schools have stood apart. The typical normal school derives its financial support from legislative appropriations, receives its students without competition from a territory over which it exercises exclusive control, and has no difficulty in placing its graduates in positions which they regard as satisfactory. Furthermore, so urgent has been the demand in the country for teachers that school boards and superintendents have not been able to make rigid selections, with the result that standards of training have not been forced upon the normal schools from without.

*Organization determined by accidental causes, often personal.*—In a situation where relative isolation has not compelled normal schools to define themselves to others there has been the largest opportunity for the play of personal influences. A strong president has often dominated the policies of a normal school to a degree that is almost unbelievable. The faculty sometimes has little or no voice in determining the courses or the modes of admission. There is no State authority in most of the States which is strong enough to determine what shall be done in normal schools. The result is that within a single State there are the widest variations. One president with the ambition to develop his institution into a degree-granting university goes on his way, while his neighbor uses the funds granted by the same legislature to develop a normal school which loudly



announces its objection to granting degrees and limits its activities rigidly to the training of elementary teachers.

**External causes stimulating movement toward standardization.**—In recent years a number of causes have begun to break down the isolation of the normal school. First and foremost is the desire of normal graduates to enjoy the advantages of higher education in universities and colleges. The growth of summer schools at universities and the frequent transfer of normal-school graduates to college and graduate courses show with clearness the desire of teachers to enjoy the advantages of all kinds of higher education. Normal schools, drawn into the current of higher education, have been called upon to announce more definitely their requirements for admission and to describe the content of their courses. What is a course in methods of teaching arithmetic? Is it a review of the course given in an elementary school or is it a discussion of the pedagogical principles on which such courses are arranged? What is a course in practice teaching? Does such a course require of the student any study of material, and does it afford him any adequate critical discussion of his work? There has been a sharp and at times unfriendly clash between normal schools and colleges in the effort to secure answers to such questions. The normal school often takes the position that it administers only high-grade courses, while the colleges express a frank doubt as to the value of these courses for mature students.

*Traditions and relations of normal schools unique.*—Perhaps the disagreement between normal schools and colleges can best be illustrated by the widespread dispute regarding foreign languages. The normal school has been historically related to the vernacular school, and its officers have had little patience with classical or even literary courses. The traditions of the college are of a totally different type. So long as no students passed from normal schools to colleges the normal schools were at liberty to hold to the vernacular, but as soon as normal-school graduates sought admission to higher institutions the controversy was on.

*Effect of parallel development of departments of education in colleges and universities.*—A second reason why normal schools have been called upon to define themselves arises because colleges and universities have in recent years entered the field of teacher training through the organization of departments of education and colleges of education. In the State universities the demand for preparation of high-school teachers has been heard, and generous provisions have in many cases been made for the work of preparing such teachers. The normal schools have looked upon this organization of teacher-training courses as undesired competition. Conversely, the university authorities have been critical of the courses in the normal schools,

and the issue has been sharply drawn. Incidentally it may be remarked that college departments of education have usually been subjected to the closest scrutiny and sometimes to violent criticism by other college departments because of their supposed inferiority. It may even be admitted that entrance requirements in the departments of education have sometimes been lower than those for other college departments in the hope of meeting the competition of normal schools, and courses of inferior standard in the college have been tolerated for like reason. All of these disputes and efforts at adjustment have aroused a general inquiry about teacher-training courses which a generation ago would have been without interest except to a small group of specialists. Now the problem is known to all who are interested in education, and the discussion must go on until some satisfactory conclusion is reached.

*General demand in all social institutions for higher efficiency.*—The explanation of the current demand that normal schools standardize themselves would not be complete without reference to the general causes which are leading all over the country to surveys and careful examination of all kinds of educational institutions. Costs of educational organizations are so high and the volume of educational activity is so great that society is demanding as never before a reasonable accounting. In the meantime the scientific methods of studying educational results have been so far perfected that the inquiry into educational efficiency can be made most pointed. Normal schools can not longer be isolated, even if they will. Society at large is interested in them as in other institutions.

*Systematic surveys of normal schools. Survey of Pennsylvania normal schools.*—Systematic surveys of normal schools are few in number. In 1912, E. O. Holland<sup>1</sup> published the results of a careful study of the Pennsylvania normal schools. He describes the organization, entrance requirements, curriculum, examinations, student body, and faculty. The normal schools of Pennsylvania were at that time privately owned. Their entrance requirements were very low, demanding only elementary education of candidates for admission. The curriculum was elementary and administered with laxness. The examinations were perfunctory and excessively lenient. Holland makes it very clear that radical changes were imperatively demanded. Some of these changes have been made since the appearance of the report.

*Survey of Wisconsin normal schools.*—A second extensive survey was made by A. N. Farmer,<sup>2</sup> under the direction of the State Board of

<sup>1</sup> The Pennsylvania State Normal Schools and Public School System. By Ernest Otto Holland. Published by Teachers College, New York City, 1912.

<sup>2</sup> Conditions and Needs of Wisconsin's Normal Schools. By A. N. Farmer. Issued by the State Board of Public Affairs, December, 1914. Democrat Printing Co., State Printer, Madison, Wis.

Public Affairs, of the normal schools of Wisconsin. This voluminous report contains a mass of details. It gives at great length extracts from reports and answers to questions. It presents in full recitations which were taken down by stenographers who visited normal classes for the purpose of reporting the recitation. In the appendix are tables giving the results of examinations of students, tables of costs, length of service, training of members of the faculties, and other matters. The body of the report gives an account of the organization and administration of the normal schools, the student body, the faculties, the training school, the course of study, and the mode of conducting instruction. There is a summary of findings placed at the beginning of the report.

*History of the Wisconsin normal-school system.*—The Wisconsin system is one of the best-equipped and most highly centralized normal-school systems in the country. In his historical sketch former President Salisbury<sup>1</sup> has shown how this system grew up after repeated efforts to develop, in connection with the State university, such normal courses as the State needed. The present survey shows that there has been much confusion resulting from a division of interest within these schools between academic and normal courses. Furthermore, there are great variations in the administrations. There is evidently a marked preponderance of influence on the side of the president as contrasted with the faculties, and there is some evidence that standards are disregarded in the efforts to keep up numbers. In spite of the original close relation between the normal-training movement and the university, the present relation of the normal schools to the university is not clearly defined.

For the purposes of this report it will not be necessary to give any further account of the Wisconsin survey. The facts brought out in the later pages of this report confirm the impression made by the Wisconsin survey that there is almost entire lack of standardization of normal schools.

*Statement by president of the Carnegie Foundation of the problem of teacher training.*—It may be remarked in passing that the Carnegie Foundation is engaged in an extended survey of the normal schools of Missouri and Indiana, as set forth in the following extract from the report of 1914:<sup>2</sup>

For several years the Foundation has considered the desirability of conducting a systematic inquiry into the present status of the training of teachers for elementary, secondary, and vocational schools. This problem, of vastly greater import to the country at large than any other existing phase of instruction, has presented a continuous challenge and, as a whole, has defied manageable analysis.

<sup>1</sup> Historical Sketch of Normal Instruction in Wisconsin. By Albert Salisbury, 1893. Published in Whitewater, Wis.

<sup>2</sup> Ninth Annual Report of the President and of the Treasurer of the Carnegie Foundation for the Advancement of Teaching. 1914. Pp. 19-21.

The training of teachers in some form constitutes the capital factor in the success of what is financially and socially the major undertaking of every community. It is a problem of enormous bulk. At the same time it differs from the same problem in such professional fields as law, medicine, and engineering in that among elementary and secondary school teachers professional consciousness is nearly lacking. No organized group of teachers speaks, plans, or labors authoritatively for the profession as a whole. Such State or National associations as exist are huge, vaguely constituted aggregates, wholly lacking in definition of aim and membership. Under such conditions the real problems of the teacher can not focus sharply and be clearly understood by the teachers themselves in their collective capacity.

This lack of professional consciousness is due, undoubtedly, to the meager training usually required as well as to the casual and temporary nature of the employment under the conditions prevailing in America. All of these elements unite to place the teacher in marked dependence upon local provision and circumstance; individual initiative is discounted, and reliance is placed upon a more or less readily regulated "supply" of passive-minded instructors.

It is this localized character of the task of preparing teachers that has finally determined the form of the contribution which the Foundation hopes to make to this subject. Little by little the States of the Nation are realizing the oneness of the educational undertaking which faces them and are discovering that they can expect to cope successfully with it only by creating a skillful and mobile central authority to operate and control the entire undertaking. Of this great single educational enterprise in each State, the portion that is most vital, that overtops all else in its decisive importance, is that of selecting and training teachers. The solution of the State's problem as a whole is measured largely by the solution of this portion of the problem. It is emphatically a State task to-day and will doubtless permanently remain so.

It would seem most helpful, therefore, for the Foundation to approach the question from a standpoint as nearly as possible identical with that of the State itself. If it can succeed in a few States, or in one State, in appreciably illuminating the situation in its legislative, administrative, and institutional aspects, the results should prove of value not only for the particular State concerned but by analogy for all States possessing similar conditions.

This it hopes to do. The governors and the department of public instruction of two typical States of the Middle West, Indiana and Missouri, have invited the Foundation to examine the situation that exists with regard to the training and supply of teachers in their respective Commonwealths. To these formal invitations have been added many requests and pledges of cooperation on the part of local authorities in schools, colleges, and universities. With the assistance of the institutions and officials involved and of the teachers themselves, it is believed that facts of great importance can be brought together and certain questions answered that are fundamental to the successful administration of the States' school systems: What is the source, the nature, and extent of the general and professional training of the teachers to-day employed? What are the circumstances of age, sex, experience, and reward? What are the facts in respect to the annual supply required in the various grades of position? What is the degree of adjustment between training and service? How do present institutional agencies meet the apparent demand of the State in point of character of material, of quality of training, and quantity of product? What, finally, is the legislative and administrative background that conditions the State's present management of its problem? In all the above particulars, what is the historical perspective, and what is the strength of present tendencies?

From such a review and comparison of conditions there can scarcely fail to emerge numerous points at which the present procedure can be improved and strengthened. The opportunity also of making a precisely parallel study of two fairly similar State units should make the results especially helpful.

*Vermont report.*—The report of the Carnegie Foundation<sup>1</sup> on the State survey of Vermont, published in 1914, includes an account of the normal institutions of that State and a criticism of these institutions.

The studies of normal schools above referred to are made, it will be noted, by agencies which are external to the schools themselves. The authorities which have charge of the normal schools have been very slow in making the kind of study of their institutions which would define with clearness the place of these schools in the educational system.

*Studies of State normal schools by local State officials.*—Material for studies and in some cases detailed examinations of normal-school problems are given in a few State reports. Two of these reports will be described, namely, the one by State Supt. Morrison, of New Hampshire, for 1911-12, pages 135-158, and the one by Commissioner Snedden, of Massachusetts, for 1912-13, pages 17-36 and 188-194.

Each of these reports is an ideal survey; that is, it is an objective, precise study made by a thoroughly qualified educational expert, who is responsible for the best development of the whole educational situation under investigation. Hence he is sympathetically interested in the condition of the whole, but has no personal preference for any part.

*Excellent report by State Supt. Morrison, of New Hampshire.*—Supt. Morrison treats the following topics precisely; that is, in terms of exact, reliable statistics reduced to a percentage basis where desirable: The proportion of trained teachers in the State, the supply of trained teachers, the constituency of each of the existing normal schools (with maps), sections of the State at present unprovided for, the condition of the normal schools. This report is supplementary to similar studies made in other biennial reports, especially the one for 1907-8 and the last report for 1913-14.

Mr. Morrison writes that "the State has a comprehensive normal policy which contemplates the training of the entire teaching force of the elementary schools."

*Excellent report by Commissioner Snedden, of Massachusetts.*—In the Massachusetts report for 1912-13 Mr. Snedden devotes a chapter of 19 pages to discussion of the work of the normal schools of the State. He gives excellent historical and statistical tables, which show in usable, precise form almost all the information that any student of the situation might desire concerning enrollment, graduation, and com-

<sup>1</sup>A Study of Education in Vermont. Prepared and published by the Carnegie Foundation for the Advancement of Teaching. Pp. 111-124.



parative per capita costs. He gives accounts of conferences of representatives of the 10 State normal schools and the State commissioner to consider "proposals for increasing the efficiency of the normal schools in training elementary school teachers." Six of these proposals are discussed. Extensive use will be made of Mr. Snedden's data in this bulletin.

*Good statistical tables by Supt. Evans, of Missouri.*—Among the State reports which contain thorough and useful statistical data, organized in common terms for comparative purposes, is that of Missouri for 1913, prepared by State Supt. Evans. On page 488 Supt. Evans gives for each of the five normal schools of the State the number of students of high-school rank and the number of college rank, further subdivided into first, second, third, and fourth year students in each of these ranks. For anyone who has tried to find out from ordinary reports just what the normal schools of such a State as Missouri are doing in the way of giving high-school and college training, this one page is very illuminating. It will be reproduced in a later chapter on numbers of students in the normal schools.

*Other State reports.*—Other useful State reports received were those of California, Idaho, Iowa, Michigan, Minnesota, Nebraska, New Jersey, North Dakota, Vermont, Virginia, and West Virginia. Some of these contain elaborate reports from the presidents of the various normal schools in the State, but little general interpretative and comparative treatment by a central State officer. Very often the report prepared by each normal-school president is so constructed as to give an impression of the bigness and importance of the school, instead of giving precise, reliable, objective data that can be readily used for comparative purposes. It would be well if all States would publish such usable and illuminating comparative reports as those of State Supts. Morrison and Evans and Commissioner Snedden.

*Comparison of students of normal schools and colleges.*—Reference may be made to special studies which have been useful in the present investigation. There is a study carried out by Mr. Shallies,<sup>1</sup> of the State Normal School of Plattsburg, N. Y., to determine the quality of students who enter the New York normal schools. Mr. Shallies secured from those high schools of New York which sent graduates to the normal school in the year 1908 a full record of all graduates. He then arranged these graduates in groups, so as to be able to compare the group which went to the normal school with the group which went to college, the group which went into business, etc. The results of this comparison make it clear that students who enter the normal school are, on the average, of a lower grade than those who go to college.

<sup>1</sup> The Distribution of High-School Graduates After Leaving School. G. W. Shallies, *School Review*, Vol. XXI (1913), pp. 81-91.

Certain other studies which have been made in particular matters are utilized in subsequent chapters of this monograph.

**Meaning of the term "standardization."**—These studies indicate that there are productive methods which can be employed in the study of normal schools. It is not the aim of this report to suggest that normal schools in different regions be made uniform. A normal school such as that in Milwaukee, Wis., drawing its students chiefly from that city and distributing its graduates for the most part into the city schools, is of necessity a very different school from the Kirksville (Mo.) Normal School, which draws its students from towns and villages and sends its graduates to rural and town schools. It may even be desirable to have wholly different types of entrance requirements and wholly different courses in two such institutions. If so, it is important that these needs be clearly defined and the standards of both schools be set up after deliberate scientific consideration.

*The eastern normal school originated as a secondary school.*—Again, there can be no doubt that the development of normal schools has been very different in different parts of the United States. In New England, New York, and Pennsylvania the normal school grew up as an institution of the rank of an academy. Indeed, in New York and Pennsylvania the normal classes were parts of the academies down to a late period. The result is that the eastern normal school seldom, if ever, strives to become a college. The courses are carried on to the entire satisfaction of faculty and State officers at the level of junior-college or high-school courses, and credit is, for the most part, not asked of the universities for this normal work.

*Relation of western normal schools to universities.*—In the Middle States a wholly different tradition arose. As indicated above, it was from the first regarded as a function of the University of Wisconsin to train teachers. The same is true wherever there are State universities. The university departments of education usually did not flourish, because the review courses which seemed to be needed did not seem to be of university grade, and there was not at that time scientific material for courses in the science of education. When normal schools grew up as separate institutions they were not academies as in the East, nor have they been recognized by the State universities as coordinate institutions. An example of the university's attitude is seen in the fact that the University of Michigan for a long time refused full credit to graduates of the State normal schools. The normal schools in many of the Western States, including Michigan, on the other hand, have not been satisfied to rank lower than the universities. They have the right to grant degrees and have been eager to exercise and enlarge this right. In the newer States the normal school has had the tradition of the college.

*The uncertainty of purpose and organization has increased with growth of normal schools.*—The western normal school has, on the other hand, in many cases made no effort to become a college. The kind of students which it could command and the urgency of the need which it had to supply have dictated a type of organization wholly different from that of the State university. The example of the New England normal school undoubtedly operated to make some of the western schools satisfied with high-school standards. Furthermore, the normal school has in some cases consciously accepted in sparsely settled or frontier communities standards of admission which were recognized as different from those of either the urban high schools or the State university. Thus confusion has grown and standards have been set aside in this development. It is now time to raise all of the questions at once and to seek an answer. Is the normal school to be of higher rank than the secondary school? Is it to be taken out of competition with the secondary school? Is it to be taken out of competition with the State university? In short, what is the place and what the legitimate work of the normal school?

This monograph merely outlines the problem of standardization of State normal schools.—One further comment is necessary in regard to the present report. The studies made have led to definite conclusions regarding the form of organization desirable in normal schools. It is evident that not all the possible facts have been canvassed. It is probable that some officers of normal institutions will not agree with the conclusions. It is emphatically to be urged that those who are not satisfied with the present work undertake the necessary amplifications of this study. The study aims merely to demonstrate the necessity of a broader investigation.

Finally, the limitations of this report may be further defined by the statement that this bulletin is restricted to a study of *State* normal schools. Some restriction of the scope of the study was necessary in order to simplify the problems and to secure a field in which comparisons could be ventured. This restriction eliminates a consideration of the work of closely related institutions, such as city training schools, county normal schools, and teachers' training courses in high schools. These institutions have been described, however, in other special bulletins issued by the Bureau of Education. County normal schools and teachers' courses in high schools are discussed in a bulletin by A. C. Monahan and R. H. Wright, entitled "Training Courses for Rural Teachers" (No. 2, 1913), and city training schools for teachers are described by Frank A. Manny in Bulletin No. 47, 1914.<sup>1</sup>

<sup>1</sup> See also Bul. No. 48, 1914, "Efficiency and preparation of rural-school teachers," and Report of the Commissioner of Education, 1914, Vol. I, pp. 1-116; 1915, Vol. I, p. 82.

## Chapter II.

### STATISTICAL COMPARISON OF COLLEGES AND NORMAL SCHOOLS.

Relation of normal schools to colleges a vital problem in the North Central States.—One of the most vigorously discussed problems is that of the relation of the normal school to the college or university. As indicated in the preceding chapter, this problem comes to the surface for historical reasons especially in the States of the North Central territory. Here there are a number of normal schools which aim to take on full college or university standing. It is appropriate, therefore, in this territory to make a comparison between the normal schools and the other institutions which receive high-school graduates and continue their education.

*The normal school has its special problems.*—Lest the motives of the following study should be misunderstood, it should perhaps be explicitly stated that it is not assumed in this report that a normal school should pattern its organization after that of the college. It is merely pointed out that in certain respects normal schools and colleges differ fundamentally.

*Report is based on returns from majority of schools.*—This comparative study of certain normal schools and colleges is based on returns made to the North Central Association of Colleges and Secondary Schools. Table 1 shows the distribution by States of the normal schools included in this study:

TABLE 1.—*State normal schools in various States considered, and number reporting to the North Central Association.*

States.	Included in report of Commissioner of Education.	Reporting to North Central Association.
Colorado.....	2	1
Illinois.....	5	5
Indiana.....	1	1
Iowa.....	1	1
Kansas.....	3	3
Michigan.....	4	3
Minnesota.....	5	1
Missouri.....	5	4
Montana.....	1	1
Nebraska.....	4	2
North Dakota.....	3	2
Ohio.....	4	3
Oklahoma.....	6	2
South Dakota.....	4	3
Wisconsin.....	5	3
Wyoming.....	10	0
Total.....	56	35

<sup>1</sup> Included as part of the State university.

**Academic training of faculties.**—The returns for both colleges and normal schools should show how many members of the faculties have advanced degrees. Table 2 gives the results for 63 colleges and universities on the approved list of the association for 1914 and 32 of the normal schools indicated in Table 1. The second column reports for the doctor's degree held by college faculties; the third column for the master's degree held by college faculties; the fourth and fifth columns for the normal faculties and the degrees of doctor and master, respectively. Thus the second column should be read as follows: There are two colleges which have less than 9 per cent of their faculty holding the doctor's degree. There are 11 institutions that have between 10 and 19 per cent, 16 that have between 20 and 29 per cent, and so on. The third column of the same table should be read as follows: There is 1 institution that has less than 9 per cent of its faculty with the master's degree; there is 1 institution that has between 10 and 19 per cent, and so on.

TABLE 2.—*Advanced degrees held by members of faculties.*

Percentage of faculty.	Colleges and universities.		Normal schools.	
	Ph. D. <sup>1</sup>	Master. <sup>1</sup>	Ph. D. <sup>2</sup>	Master. <sup>2</sup>
0 to 9.....	2	1	22	3
10 to 19.....	11	1	8	6
20 to 29.....	16	1	2	5
30 to 39.....	13	2	.....	7
40 to 49.....	6	7	.....	6
50 to 59.....	10	8	.....	4
60 to 69.....	2	11	.....	0
70 to 79.....	3	11	.....	1
80 to 89.....	.....	15	.....	.....
90 to 100.....	.....	6	.....	.....

<sup>1</sup> Nine not reporting.<sup>2</sup> Three not reporting.**For colleges:**

Average per cent of doctors..... 34  
 Average per cent of masters..... 67

**For normal schools:**

Average per cent of doctors..... 7  
 Average per cent of masters..... 31

This table makes it very clear that the academic qualification of normal faculties is very different from that of faculties of even the small colleges. It is not argued that university degrees should be required, but it is evident that normal schools must give heed to this sharp distinction when discussing the admission of their students to college with full credit for normal courses.

**Sizes of normal faculties less than those of universities, but above those of most small colleges.**—Table 3 shows the sizes of faculties, indicating the gross membership of these faculties. The table dis-



tributes the institutions according to the increasing size of the faculties:

TABLE 3.—*Distribution of institutions according to size of faculty.*

Classes of institutions.	Number of members in faculty.															
	5 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 to 99	100 to 149	150 to 199	200 to 249	250 to 299	300 or more.	No report.
Colleges and universities having numbers given.....	1	21	11	7	6	2	2	2	2	1	4	1	2	1	3	6
Normal schools having numbers given.....	1	9	5	9	4	3	2	0	0	1	0	0	0	0	0	1

This table shows that the normal school is to be classified as belonging, in general, with the small college in point of size. It is not equipped for instruction as is the great university. A few of the normal schools have reached the level of large colleges, as shown by the fact that one has a faculty of between 90 and 99, two between 60 and 69.

**Normal-school faculties work many hours.**—Table 3A, taken in connection with Table 3, reveals a fundamental difference in policy regarding the hours of service expected of members of the faculty. Each institution was asked to report the number of members of the faculty who have more than 18 hours a week of teaching. In the normal schools it is practically universal. Among the colleges and universities there are 36 which report no members of the faculty who work 18 hours. Where the colleges and universities report more than 18 hours, they usually qualify the report by stating that it is only officers in charge of shops or laboratories who have the long hours. In several normal schools all officers have the long hours.

TABLE 3A.—*Distribution of institutions showing number of officers who teach over 18 hours per week.*

Classes of institutions.	Number of members of faculty who teach more than 18 hours per week.								
	None.	1 to 4	5 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	No report.
Colleges and universities reporting numbers given.....	36	12	6	3	1	0	2	0	12
Normal schools reporting numbers given.....	0	9	2	3	7	6	6	1	1

The table regarding hours of work is illuminating. It shows, in the first place, why candidates for teaching positions prefer to get into colleges. The hours of work in normal schools are much longer.

In the second place, this table explains in large measure why the faculties of normal schools can not and do not carry on as much productive work. If normal schools are to help teachers in service to prepare courses of study and to test their results, they must have more leisure than they now have.

**Salaries are good.**—The average salaries paid to members of the faculty are set forth in Table 4.

TABLE 4.—Average salaries in North Central colleges and normal schools.

Salaries.	Universities and colleges.	Normal schools.	Salaries.	Universities and colleges.	Normal schools.
\$900 to \$999.....		1	\$1,800 to \$1,899.....	9	3
\$1,000 to \$1,099.....	3		\$1,700 to \$1,799.....	9	3
\$1,100 to \$1,199.....	4	1	\$1,800 to \$1,899.....	2	5
\$1,200 to \$1,299.....	8	2	\$1,900 to \$1,999.....	5	1
\$1,300 to \$1,399.....	6	1	\$2,000 to \$2,099.....	1	
\$1,400 to \$1,499.....	7	5	\$2,100 and over.....	2	3
\$1,500 to \$1,599.....	6	3	No information.....	10	7

**Material resources.**—In general, as indicated in the table on average salaries, the material resources of the normal schools are very good. Direct comparison of capital is difficult, because most colleges depend on private endowments, while normal schools are supported by legislative grants. The following tables (Tables 5 and 6) give the facts, however, in a form which shows the satisfactory financing of normal schools. Table 5 shows the distribution of endowed institutions in the North Central States. This table does not include any normal school, but establishes a basis of comparison. The income from an endowment of \$250,000 is not likely to exceed \$15,000. The college is supported further, as the normal school is not, by tuition fees. All told, however, there are many colleges which have a gross income of less than \$50,000.

TABLE 5.—Productive endowment of colleges and endowed universities.

Endowment.	Institutions.	Endowment.	Institutions.
\$100,000 to \$149,000.....	1	\$400,000 to \$449,000.....	4
\$150,000 to \$199,000.....	0	\$450,000 to \$499,000.....	3
\$200,000 to \$249,000.....	10	\$500,000 to \$999,000.....	11
\$250,000 to \$299,000.....	4	\$1,000,000 and over.....	9
\$300,000 to \$349,000.....	2	No information.....	7
\$350,000 to \$399,000.....	0		

Table 6 compares the North Central normal schools with similarly located State institutions. Here it should be noted that there are usually several normal schools in a State, so that the aggregate expenditure on normal schools, when all normal institutions are con-

sidered, is much greater than the figures in Table 6 would at first sight indicate:

TABLE 6.—*Annual income of State-supported institutions in North Central States.*

Amount of income.	Univer- sities.	Colleges of agri- culture and mines.	Normal schools.
Less than \$25,000.....	0	2	.....
\$25,000 to \$49,000.....	0	3	6
\$50,000 to \$74,000.....	1	1	6
\$75,000 to \$99,000.....	0	0	5
\$100,000 to \$124,000.....	0	0	8
\$125,000 to \$149,000.....	0	0	3
\$150,000 to \$199,000.....	6	0	3
\$200,000 to \$249,000.....	1	1	0
\$250,000 to \$299,000.....	1	0	1
\$300,000 to \$399,000.....	1	0	0
\$400,000 to \$499,000.....	0	0	0
\$500,000 and over.....	6	0	0
No information.....	3	0	3

**Number of courses.**—Table 7 shows how many courses are given in a year by the approved universities and colleges of the North Central Association and by the normal schools. The magnitude of the normal schools is made evident by this table.

TABLE 7.—*Number of courses given annually.*

Number of courses.	Univer- sities and colleges.	Normal schools.
Less than 25.....	.....	1
25 to 49.....	3	5
50 to 74.....	9	5
75 to 99.....	10	8
100 to 124.....	9	2
125 to 149.....	5	1
150 to 174.....	3	2
175 to 199.....	3	3
200 to 299.....	8	5
300 to 399.....	5	1
400 to 499.....	2	.....
500 and over.....	8	.....
No information.....	7	2

**Ratio of faculty members to number of students.**—One other item of internal organization may be made a subject of comment. The ratio of faculty members to students is about the same in normal schools and colleges, as shown by Table 8. The organization of normal schools is seen to be like in kind to that of the colleges.

TABLE 8.—*Distribution of institutions according to ratio of faculty members to students.*

Students per faculty member.	Universities and colleges.	Normal schools.
0 to 4.9.....	.....	1
5 to 6.9.....	2	2
7 to 8.9.....	3	.....
9 to 10.9.....	11	3
11 to 12.9.....	11	2
13 to 14.9.....	14	3
15 to 16.9.....	10	8
17 to 18.9.....	5	4
19 to 20.9.....	6	1
21 to 22.9.....	3	1
23 to 24.9.....	.....	2
25 to 29.9.....	4	.....
30 to 39.9.....	.....	2
40 to 49.9.....	.....	.....
50 to 59.9.....	1	.....
No information.....	2	6

Summarizing this comparative study, it may be said that in material resources, in number of courses, and in ratio of faculty to students, normal schools are directly comparable to selected lists of universities and colleges. In training of the faculty and in the tasks imposed on faculty members, normal schools suffer seriously in comparison to colleges.

## Chapter III.

### PURPOSE, NUMBER, AND GEOGRAPHICAL DISTRIBUTION OF SERVICES OF STATE NORMAL SCHOOLS.

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Normal schools exist for the State, not for the students.—To a student of American normal schools the first broad questions which arise concern the *purposes* of these schools, the *number* of schools maintained in each State, and the *geographical distribution of the services* of the schools within a State. These three items are intimately related. An excellent expression of the relationship is contained in the following quotation from the report of State Supt. Morrison, of New Hampshire, for 1911–12, page 151. After discussing the possible location for new normal schools in the State, he says:

It will perhaps be recognized that the foregoing discussion is all based upon the theory that normal schools exist for the State and not the reverse. \* \* \* They are not established primarily to afford opportunities to young women who aspire to teach, but rather for the purpose of furnishing trained teachers for the common schools. Their establishment becomes purely a matter of finding ways in which they can serve this purpose to the best and most economical effect. No community has any claim upon the State for the location of a new school within its limits. Every school should be so located as to provide the best prospect of enabling a section of the State to educate and train its own teachers.

Almost the same statement occurs in the report of Commissioner Snedden, of Massachusetts, who says (1912–13, p. 74) :

The normal schools do not exist for the sake of the young people whom they educate ; they were organized for the purpose of training teachers for the public schools. Their further development must be controlled by considerations as to what will prove the most effective and most economic means of training an adequate supply of teachers for the Commonwealth as a whole.

*This standard applies in settling all normal-school issues.*—It might seem to some readers unnecessary to reiterate the point of view expressed in these two quotations, but, as a matter of fact, in almost every State it is necessary to keep constantly in mind this idea of securing the most effective and economic means of training teachers for the whole State, in order to combat local influences and ambitions and to avoid the waste of State funds.

Determining the location for new normal schools ; four factors.—There are many instances of normal schools which have been un-

fortunately located, owing to lack of foresight or to the temporary strength of local political influences, and these unfortunate locations are not infrequently referred to and discussed by State authorities who take an objective view of the needs of the whole State. Among the most important considerations in locating most normal schools are the following: (1) Each one should be so located as to serve a well-defined area of population. (2) It should be centrally located in the area, which usually should have a radius of about 50 miles from the normal school as a center. (3) It should be located in the most convenient railroad center in this area. (4) It should be located in a town large enough to provide more than adequate practice-teaching facilities for any number of teachers that the area might need at any time in the future.

*Balancing of these factors usually needed.*—Needless to say, not all these conditions could be completely satisfied in locating every normal school. Number 2 must often be violated when there is a large metropolitan area located on the edge of a State. In such a case, however, the location of the school on the edge of the area is usually compensated for by the fact that the city is an excellent railroad center.

*Unfortunate location of normal schools in small towns.*—All these conditions have been violated in the establishment of some normal schools. In fact, it is not uncommon in normal-school catalogues to find idealized descriptions of the location of the school in question in a small town far from the distractions and temptations of city life. While this monastic seclusion may have some obvious advantages, the disadvantages of such a location for a school that is to serve a large area of the State most economically and effectively are of much greater importance. Sometimes a State normal school which is supposed to serve a large, well-populated area is located in a town of only 2,000 to 5,000 population on a single railroad, when only a few miles away is a city of over 20,000 located on several railroads.

*Critical study of normal-school zones of New Hampshire.*—An excellent discussion of the above conditions as they determine the location of new normal schools in a single State—New Hampshire—is found in Supt. Morrison's report for 1911-12, pages 141-151. The accompanying map shows the two zones from which the two existing normal schools draw most of their students.

*Poor location of the Plymouth school.*—The long irregular zone running up along certain railroad lines in the middle of the map is inadequately served by the Plymouth Normal School, as shown in the following quotation (p. 144):

In connection with Plymouth, it should be said that the school can not possibly fully serve the zone from which it now draws students. Twenty per cent

of the Plymouth enrollment at present comes from the city of Manchester alone. The zone contains five cities, three of them the largest, in order, in the State, besides a number of large towns, something like two-fifths of the entire population of the State. Now, Plymouth is up to its maximum enrollment. No amount of building or physical enlargement of the school can provide model and practice schools, which are the vitals of successful normal-school work. The trustees at present limit the enrollment to 150. But even this is much too large for the most effective work.

*Better location of the Keene school.*—On the other hand, the normal school at Keene, N. H., is better located to serve its constituency. The contrast with the poor location of Plymouth is brought out in the following quotation (p. 146):

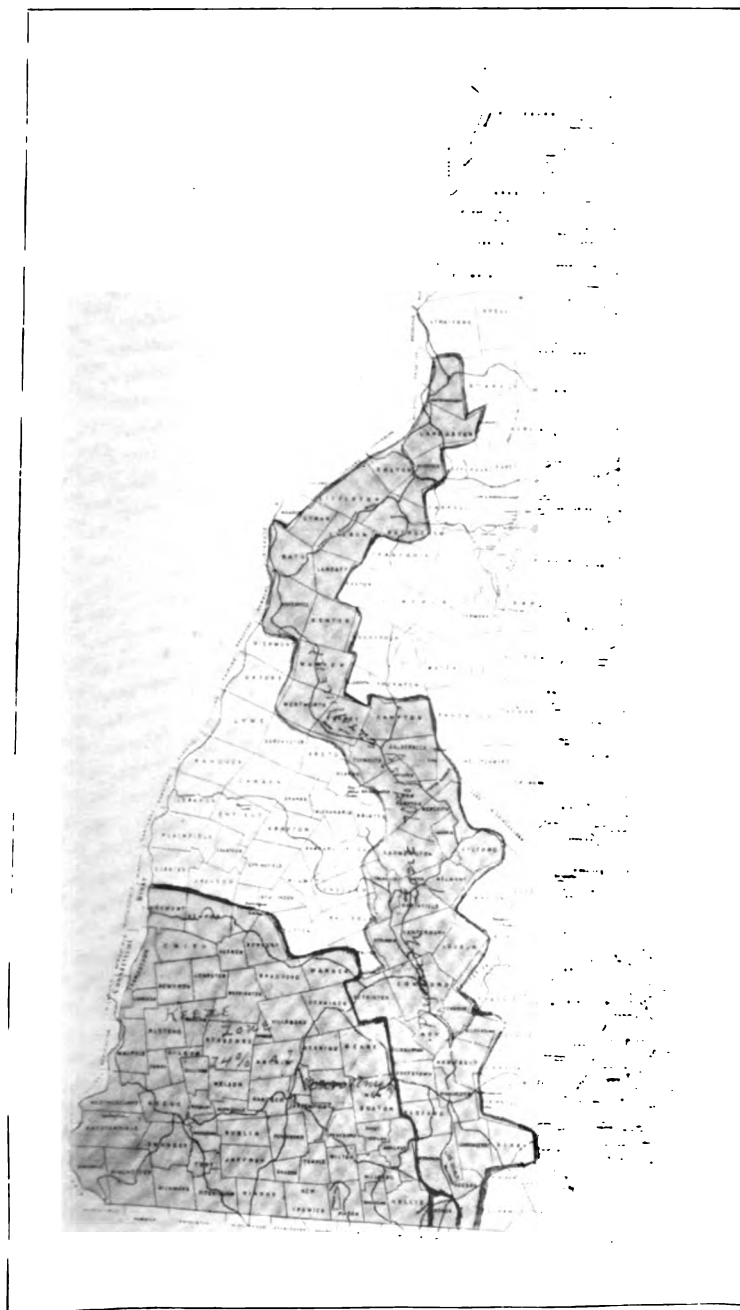
The Keene zone, as will be seen, is much more normal in type—that is, it approaches more nearly the character of a circle with a school at its center. As a result, its work for the State will probably always be more intensive. I mean by that that it will tend to have some students from every town in its territory. This zone requires annually about 90 teachers without previous experience. We can without any great exercise of the imagination see the school providing this number annually. Hence we can safely say that it is merely a question of time when a section of the State southwest of a line drawn between Nashua and Claremont can *provide itself* with teaching forces composed exclusively of trained teachers.

The Keene school can train an enrollment of 480 as easily and as well as Plymouth can train an enrollment of 150. There is model and practice material enough there for the purpose. An enrollment of 250 students under training would suffice for the needs of that section of the State.

*Description of location of a well-located normal school.*—In compiling this bulletin an attempt was made to secure from the president of a well-located normal school the data to fill in the blanks in the following. The data were not forthcoming, however. In lieu of them, the paragraph is printed with blank spaces which any normal-school president can fill in for his school and ascertain if the story which the paragraph then tells is satisfactory from the standpoint of the possibilities of the school rendering large service:

An example of a — (well or poorly) located normal school is the one at —. (1) The zone which it serves contains a population of — and needs approximately — new teachers for town schools and — new teachers for rural schools annually. (2) The town is — centrally located in the area, as will be seen from the accompanying map. The average radius from the town to the edge of its normal-school area is approximately — miles. (3) — steam and electric railroads place the city in direct communication with — parts of the area. (4) The city has — thousand children in its public schools, which assures adequate (or inadequate) practice facilities for — years to come.

**Number of normal schools in a State.** *Each section must train its own teachers.*—Closely related to the geographical distribution of the services of State normal schools is the number maintained by a given State. Logically, since the purpose of the State normal schools is to



**ZONES IN NEW HAMPSHIRE FROM WHICH THE TWO STATE NORMAL SCHOOLS DRAW THE BULK OF THEIR STUDENTS.**





train teachers for the *whole* State, the number of schools established should be determined by this consideration. As soon as one begins to study the question from this point of view, he meets the "well-established principle that all higher educational institutions draw their students largely from within a radius of comparatively few miles." A corollary of this principle as applied to normal schools is that "in the long run, each community has to raise as many teachers as it needs." Furthermore, the services of a normal school to the different parts of the community diminish rapidly as one travels away from the center where it is located.

*Distribution of students when only one State normal school is maintained.*—One of the best illustrations of this fact is the accompanying map, reproduced from the catalogue of the State Normal School at Terre Haute, Ind. The latter is one of the few well-developed States that maintains only one State normal school. It would appear from the map that the county in which the school is located and the immediately surrounding tier of counties receive 29 per cent of the services of the school, although they include only 7 per cent of the population of the State. Even if the county in which the school is located be omitted (since many persons move into the normal-school town to educate their children), it is found that the immediately surrounding tier of counties receives 12 per cent of the services of the State school, although these counties include only 4 per cent of the population of the State. In other words, the region in which the school is located receives from the State funds three to four times the amount of service to which it is entitled on the basis of the population of the region. The data on which these calculations are based are shown in the accompanying table.

*Proportionate representation of neighboring counties and the whole State in the Terre Haute (Ind.) State Normal School.<sup>1</sup>*

Region.	Population, 1910.	Per cent population, 1910.	Students in normal.	Per cent students.
State.....	2,700,876	100.0	3,855	100.0
State, except Vigo and contiguous counties.....	2,506,893	92.8	2,729	70.8
Vigo and contiguous counties.....	193,983	7.2	1,126	29.2
Vigo County, seat of normal.....	87,930	3.3	651	16.9
Aggregate of all counties contiguous to Vigo County.....	106,053	3.9	475	12.3
Counties contiguous to Vigo County, in detail:				
Vermillion County.....	18,865	.7	82	2.1
Parke County.....	22,214	.8	92	2.4
Clay County.....	32,535	1.2	126	3.3
Sullivan County.....	32,439	1.2	175	4.5

<sup>1</sup> Terre Haute is located in Vigo County.



*Students in the Indiana State Normal School per 1,000 population.*

For the State as a whole.....	1.4
For State except Vigo and contiguous counties.....	1.1
For Vigo and contiguous counties.....	5.8
Vigo County.....	7.4
Aggregate of all counties contiguous to Vigo.....	4.5
Counties contiguous to Vigo, in detail:	
Parke County.....	4.2
Clay County.....	3.9
Sullivan County.....	5.4
Vermillion County.....	4.4

For every 1,000 population Vigo and contiguous counties send to the State Normal School 5.3 students for every 1 from the rest of the State.

*Few normal graduates in sections remote from normal schools.*—Further evidence concerning the tendency of a normal school to fail to serve areas of the State remote from it is contained in the extracts given below from letters received by State Supt. Kendall from teachers in the southern part of New Jersey who were high-school graduates, but had not attended normal school. In discussing the situation Mr. Kendall says: "The fact is that the State has not done its duty to the children in that section, because it has failed to provide adequate facilities for the training of teachers." The following quotations from letters are typical (report for 1913, pp. 132-133):

"I do think if there had been a normal school nearer, so I could have gone with less expense attached, I would have been a normal graduate to-day."

"The reason I did not attend was because of the cost and inconvenience. Had there been a normal school nearer home, no doubt I should have attended such."

"The only reason why I did not enter a normal school was because of the overcrowded conditions at the State Normal School at Trenton, and I could not enter until the following term after sending in my application."

"The only reason for my not attending the normal school was the expense, on account of the normal school being too far from my home."

"I would have been only too glad of the opportunity to attend a normal school had there been one near at hand. Furthermore, this fall I tried to have my sister enrolled as a student at the Trenton Normal School, but there was no room for her. The same condition prevailed at Montclair. I was disappointed, for I wanted her to attend a New Jersey normal school."

"Had there been a normal school in our vicinity when I graduated from high school, I should have been glad to take advantage of the opportunity."

*Data showing number of State normal schools in each State.*—In view of such facts most States have endeavored to meet the needs of all sections by establishing two or more State normal schools to serve definite areas. The number of State normal schools maintained in each State is shown below. Similar data are shown on the map on page 29.

*Number of State normal schools in each State.*

Alabama.....	7	Maryland.....	3	Oklahoma.....	7
Arizona.....	2	Massachusetts.....	10	Oregon.....	1
Arkansas.....	2	Michigan.....	4	Pennsylvania.....	13
California.....	8	Minnesota.....	5	Rhode Island.....	1
Colorado.....	<sup>1</sup> 2	Mississippi.....	1	South Carolina.....	2
Connecticut.....	4	Missouri.....	6	South Dakota.....	4
Florida.....	<sup>2</sup> 1	Montana.....	1	Tennessee.....	4
Georgia.....	<sup>2</sup> 3	Nebraska.....	4	Texas.....	5
Idaho.....	2	Nevada.....	<sup>2</sup> 1	Utah.....	<sup>2</sup> 1
Illinois.....	5	New Hampshire.....	2	Vermont.....	2
Indiana.....	1	New Jersey.....	3	Virginia.....	5
Iowa.....	<sup>1</sup> 1	New Mexico.....	2	Washington.....	3
Kansas.....	3	New York.....	<sup>1</sup> 11	West Virginia.....	7
Kentucky.....	3	North Carolina.....	7	Wisconsin.....	9
Louisiana.....	1	North Dakota.....	4	Wyoming.....	<sup>2</sup> 1
Maine.....	6	Ohio.....	<sup>2</sup> 4		

*Uneconomical to maintain very small schools.*—The multiplication of normal schools to serve the several districts of the State has, however, certain disadvantages when carried too far. These disadvantages are those which result from the maintenance of a number of very small schools, instead of a few which are large enough to permit the economical development of adequate equipment and the economical employment of an adequate faculty. It is necessary to balance these factors against the arrangements for localizing the services of the normal schools in order to determine the number of schools that any State ought to undertake to maintain.

*Disadvantages illustrated in Massachusetts.*—Some of the disadvantages of organizing too many schools are discussed by Commissioner Snedden, of Massachusetts, a State which maintains 10 normal schools. He says (Report, 1912-13, pp. 72-73) :

In proportion to population, and especially in proportion to area, Massachusetts has more (separate) normal schools than any other State in the Union. As one result the State has a larger proportion of trained teachers in the public schools than any other State; as another, opportunity for normal-school attendance is easily possible to a large majority of the residents of the State, even in the case of pupils desiring to attend as day students.

But there are disadvantages connected with this multiplicity of normal schools. Each school must offer a rounded program of professional instruction with proper specialization of work on the part of instructors. Hence the per capita expenditure of a small school is necessarily large. Again, because of the small size of each of the normal schools in the State, it is not practicable to pay to heads of departments salaries equal to those offered in other States which have larger normal schools. The result is that for many years Massachusetts has been steadily losing its most expert normal-school teachers. The maximum salaries paid teachers in the Massachusetts normal schools are: To women,

<sup>1</sup> State colleges for teachers counted as normal schools.

<sup>2</sup> Includes normal schools organized as part of a State college or university.

\$1,500; to men, until recently \$2,300 and now \$2,500; but larger schools in other States pay as much as \$2,000 to women and \$3,000 to men, as heads of departments. The overhead and administration charges for a small school are invariably larger in proportion to attendance than for a large school.

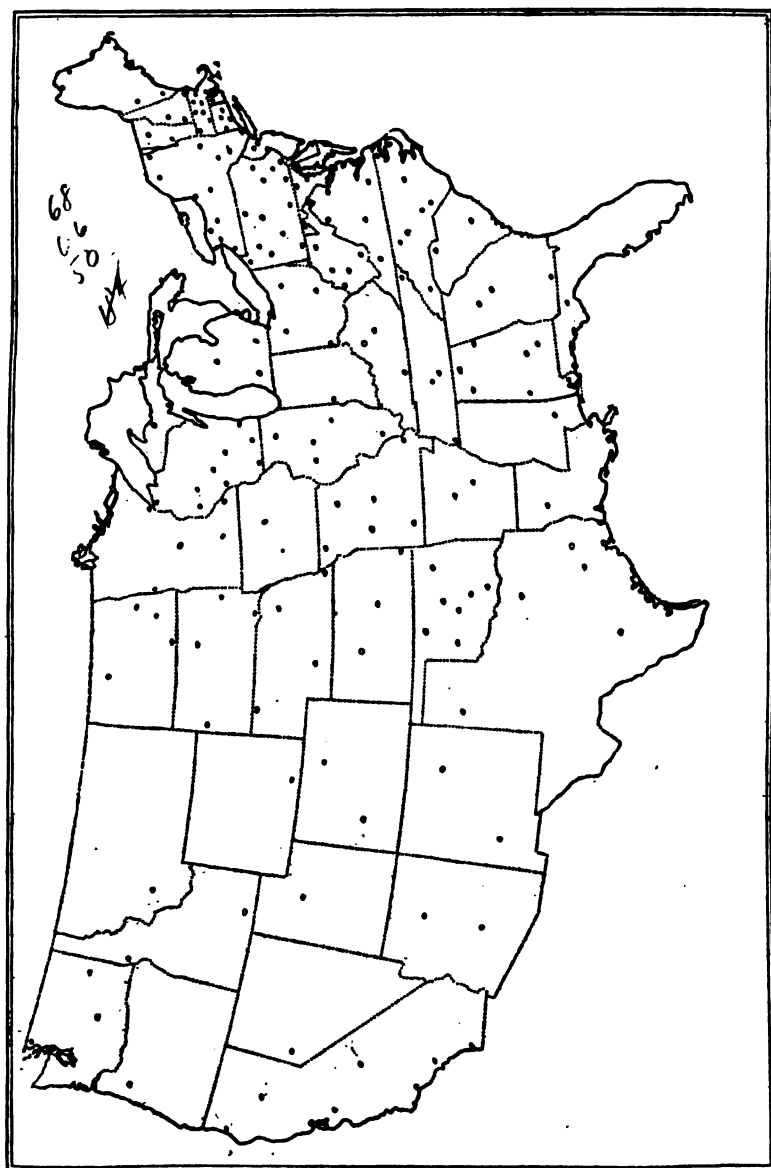


FIG. 2.—Distribution of State normal schools.

A more detailed discussion of the larger per capita expense of maintaining small normal schools will be given in later chapters.

*Instruction deteriorates in overcrowded normal schools: Limiting the attendance.*—In some States the normal schools quickly outgrow

their facilities. In some such cases the schools continue to try to take care of all comers, with resulting deterioration in the quality of the instruction provided. Other States place limits on the number of students that may be accommodated in the schools. In order to keep the schools from being filled up entirely by students from the immediate vicinity, an equitable allotment of students to the several counties in the normal school district is sometimes provided. The effect of both of these arrangements is seen in the following excerpt from the report of the principal of the Trenton (N. J.) State Normal School. He says (An. Rep. State Bd. of Ed., 1913, p. 439) :

We took for the year a larger enrollment than we really should have taken, considering the size of our building and the number of our teachers, and yet we were not able to receive more than half of those who wished to come. The provision of the law that secures the rights of the more distant counties to their proportion of the enrollment is wise, but it is especially hard that those living near us can not all be received.

*Railroad fares of students paid in a few States.*—In a very few cases the disadvantages of communities located at some distance from a State normal school are balanced by the payment of the railroad fares of students. For example, in the 1913 report of the board of trustees of the Rhode Island State Normal School (p. 10) we find the following paragraph:

*Students' mileage and car fares.*—Obviously to promote, in some degree, an equality of opportunity among students of the Normal School residing in different parts of the State, an annual appropriation for mileage has been made by the general assembly since 1871. The first appropriation of \$1,500 was increased to \$2,000 in 1896, to \$3,000 in 1900, and to \$4,000 in 1902. The appropriation for mileage is apportioned among students who reside farther from the Normal School than a distance practically indicated by a car fare of 5 cents, according to the distance traveled and the number of days of attendance. Though there has been a large increase in the number of students, there has been no increase since 1902 in the amount of mileage annually appropriated by the general assembly. The trustees, however, have found it essential, in view of the extension of the system of training schools to different parts of the State, to provide, from the general appropriation for the school, car fares for student teachers in cases not covered by mileage. Though not perhaps a pressing need, an increase in the amount allowed for mileage would prove of pronounced advantage.

This paragraph is followed in the Rhode Island report by 12 rules governing the apportionment of mileage and car fares.

Similarly, in the New Mexico Normal University bulletin for 1914, we find the following paragraph:

*Railroad fare.*—A student that will sign a declaration of residence in New Mexico and an intent to teach in New Mexico may have railroad fare, less \$3, returned after eight weeks' attendance at the Normal University. Students must travel over shortest practicable route. Take a receipt for every ticket you buy.

**Maintenance of normal schools usually parallels general educational policy of a State.**—In most States the establishment of normal schools has paralleled the general educational conditions and educational policies of the State. Consequently, in States like Massachusetts, New York, Michigan, Wisconsin, and California, we find strong normal-school systems. In other States, such as some of those in the South, the development of normal schools has been retarded, paralleling in this respect the development of general educational conditions. The recent intense revival of educational progress in these sections, however, is generally paralleled by similar interest in normal-school education.

*Exceptions.*—In a few States the adequate development of State normal schools was retarded for a long time even though the general educational conditions were fairly good or even excellent. Examples of such States are Pennsylvania, Ohio, Indiana, and Iowa. In some of these cases one important factor in retarding the development of adequate public normal schools was the existence of a large number of private and denominational colleges or normal schools. In the Report of the Commissioner of Education for 1912 Ohio is shown to have some 37 such colleges; Pennsylvania has practically the same number and until recently had in addition about 13 private (but so-called "State") normal schools, the latter receiving State aid. Iowa has only about 22 private and denominational colleges in the list and Indiana only 17, but in each of these States a single powerful State normal school is an additional factor to be considered in determining why these highly developed States have relatively inadequate State normal-school facilities for many parts of the States. The situation in Pennsylvania was thoroughly described in the study by E. O. Holland, in 1912, which was referred to above on page 9. About the time that this study was published, reforms in the administration of the so-called State normal schools were begun, which will probably eventually result in these schools serving the purposes of the State as State normal schools do in most places. In Ohio two State normal schools were opened in 1902, but grew very slowly, owing to the fact that private-school interests opposed the development of an adequate scheme for granting teachers' certificates to the graduates of the State schools. These difficulties were eventually overcome, however. Moreover, the State recently opened two new State normal schools. Indiana still has only one State normal school, but several very powerful private normal schools or colleges. From the list in the Report of the Commissioner of Education for 1912, it would appear that the State of Iowa has no State normal school, but this is merely due to the fact that the institution at Cedar Falls is now ranked as a State teachers' college; hence it appears in the list of colleges instead of normal schools.



## Chapter IV.

### THE ADMINISTRATIVE CONTROL OF STATE NORMAL SCHOOLS.

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**Control to be determined by purpose of serving the State.**—Since the purpose of a State normal-school system is to serve the whole State in the training of teachers, the question of the administrative control of the State schools in the interests of the State is of vital importance. The issues which arise in determining the best type of control are the same as arise in the case of any other State educational institutions. The problems are somewhat simpler, however, in the case of normal schools, because the purposes of these schools may be clearly defined and restricted, namely, to training teachers for the public schools of the State. Since the number and kind of teachers needed in each State can be very easily and very definitely determined, the larger outlines of the tasks of the normal schools can also be easily drawn. Consequently there should be less scope for variation in opinion concerning normal-school policies than concerning the policies of other educational institutions. As a matter of fact, however, there exists a great variety among the different States. These forms of control will be discussed in this chapter in two sections. The first section contains some of the results of an elaborate inquiry conducted by Mr. D. R. Henry during the spring of 1915 by means of correspondence with State educational officials and normal-school presidents and by an examination of the latest available printed State codes of school laws. The second section contains an interpretative discussion by the authors of the bulletin.

#### Section I. A STUDY OF STATE NORMAL SCHOOL CONTROL.

By D. R. HENRY, *Superintendent of Schools, Jerseyville, Ill.*

**Types of control.**—Though the systems of control in State normal school systems differ in details, there seem to be four clearly defined types. These are:

I. The type in which the authority to control is vested in a separate local board of trustees for each normal school. Examples of this type of control are Arizona, Georgia, Illinois, Indiana, Missouri, New Mexico, North Carolina, Ohio, Pennsylvania, and Washington. In

practically all cases there are *ex officio* members on these boards who serve to connect the local and State control.

II. The type in which the authority to control is vested with a State board of normal school trustees or a State board of education which has supervision of normal schools, but of no other educational activities in the State. In Alabama, Arkansas, Maine, Michigan, Minnesota, Mississippi, Nebraska, New Hampshire, South Carolina, Virginia, and Wisconsin the State normal schools are placed under the management of such a State board. The members of these boards are usually chosen from various parts of the State. To insure a representative body, many of the States have passed measures relating to the political, residential, and sex qualifications of members. For example, the Minnesota law provides that "there shall be one director resident in each county in which a normal school is located, and no two shall be residents of the same county." Some States determine the number by congressional district.

III. The type in which the control is vested in a State body usually termed board of education or board of regents which controls at the same time other educational activities in the State. Examples of this type of control are Connecticut, Idaho, Iowa, Kansas, Maryland, Massachusetts, New Jersey, New York, North Dakota, Oklahoma, South Dakota, and Tennessee. The authority in this type rests with this State board as the administrative head of the State school system or of the higher institutions. The titles of the body are somewhat confusing. For example, the functions of the Iowa State Board of Education are limited to State institutions of higher education. In New York the State board of regents is the administrative head of the public school system, acting in all matters not in conflict with statutes.

IV. The type in which there is a dual or cooperative scheme of control. This type of control is less common and fewer examples can be offered. Though the dual characteristic is common to all of these examples, the following cases will show that they vary considerably in detail. Montana has a State board of education in charge of all State educational institutions. As relates to State normal school control, there is also a local board of trustees consisting of three members, two appointed by the governor and the president of the normal school serving as *ex officio* chairman. In theory the State board has general control and delegates such powers to the local board as it sees fit. California until recently has offered another peculiar system of control. A board of trustees was over each school, and paralleling somewhat the Montana State board was a "Joint Board of State Normal School Trustees" composed of the governor, the superintendent of public instruction, and the presidents of the State normal school boards. The joint board has been

abolished by the recent session of the legislature, and its powers have been lodged in the State board of education. Kentucky still retains a similar type of control. A local board of regents has general control and management of a normal school, adopting needful rules and regulations, appointing or dismissing officers, fixing compensation, etc., while the duty of the "Normal Executive Council" is to "prescribe the course of study to be taught in each State normal school and the educational qualifications for admission to and graduation from the same." The council is composed of the State superintendent of public instruction and the "head executive" of each State normal school. West Virginia offers a typically dual type of administration. The State normal schools are under the management of two State bodies, the "State board of regents" and the "State board of control." The former board consists of four members appointed by the governor and the State superintendent of public instruction. The State board of control is composed of three members, all appointed by the governor. It is to be noted that the State board of control is in charge of the *business* management of the State normal schools, while the board of regents is the *administrative* head in all educational matters.

In theory New York has the State-local type of control. Local boards of "not less than 3 nor more than 13" members are placed over each of the 10 State normal schools. As was stated in a paragraph above, the State board of regents is actually the administrative head of the public-school system. The local boards are purely advisory bodies and their local management is subject to the commissioner of education and the board of regents. In commenting on the place of the local boards Mr. Thomas E. Finegan says:

Local boards were established when these institutions were first organized and before the State board of regents had general supervision of all educational matters throughout the State. Since the educational work of the State was unified and the State board of regents was made the general legislative educational body of the State, there is not the reason for local boards in charge of educational institutions that previously existed. You will readily understand, however, how difficult it is to abolish local boards after they have once been established.

**Appointment, tenure, and size of boards.**—The following methods of appointment were noted: Appointment by governor; by governor, with confirmation of one of the houses; by governor, with approval of both houses; by legislature; by State board of education; and by popular vote. The predominant method is to recognize the governor as the executive head of the State and the one responsible to the public, and to check the arbitrary exercise of the appointing power by requiring confirmation by the legislative department of the State government and specifying certain qualifications. South Carolina

and New York place appointment with the legislature, in Pennsylvania the State board of education appoints, and Michigan makes it a matter for popular vote.

The tenure varies from 2 years in Connecticut to 12 in New York. In Massachusetts and Pennsylvania the term is 3 years; in California, Georgia, Illinois, Indiana, Kansas, Kentucky, Maine, Minnesota, New Mexico, and Virginia, 4 years; in Idaho, Nebraska, New Hampshire, Ohio, and Wisconsin, 5 years; in Alabama, Colorado, Iowa, Maryland, Michigan, Mississippi, Missouri, North Dakota, Oklahoma, Oregon, South Carolina, South Dakota, Tennessee, and Texas, 6 years; in Arkansas, 7 years; in New Jersey, 8 years; and in New York, 12 years. A 6-year term is most prevalent, with 4 and 5 following in order. The term of *ex officio* members is, of course, determined in some other way and is usually 2 or 4 years. One, two, or three members are usually appointed annually or at each regular session of the legislature and retire accordingly in the same way. In some States one member is appointed annually. In such case the number of members and the tenure must necessarily be the same. New York is a good example of the method of appointment. There are at present 12 members of the State board of regents, 1 member being chosen from each of the nine judicial districts of the State and 3 from the State at large. Members are elected by a joint ballot of the State legislature. The term of office is 12 years, 1 member being elected annually.

In regard to size, the tendency seems to be toward a board of from 5 to 9 members. Arizona, Kansas, and Washington have small boards of 3 members, while the boards of Georgia vary from 9 to 20 members. Michigan has a board of 4 members; Illinois, Indiana, Maine, New Mexico, North Dakota, and South Dakota have 5; Idaho and Texas, 6; Colorado, Connecticut, Missouri, Nebraska, New Hampshire, and Oklahoma, 7; Alabama, Arkansas, Maryland, and New Jersey, 8; Iowa, Massachusetts, Minnesota, Oregon, and Tennessee, 9; South Carolina and Wisconsin, 11; New York and Virginia, 12. Small boards are usually *ex officio*, but the Kansas State board of administration is an exception. The law specifies no qualifications. The board at present is composed of E. T. Hackney, a lawyer; E. W. Hoch, ex-governor and editor; and Mrs. Cora G. Lewis. They give their entire time to the work and receive an annual salary of \$3,500 each.

**Qualifications of members of boards; the data concerning qualifications.**—An examination of data under this head reveals that few States specify qualifications for board members other than the restrictions relative to residence, political party, sex, and relationship to institutions. Later legislation reveals a tendency toward the selection of a board composed of persons who are somewhat prepared for the work they are to do. Indiana and Ohio merely provide that their boards shall be composed of "competent persons," but Iowa

law specifies that "they shall be selected solely with regard to their qualifications and fitness to discharge the duties of the position." Oklahoma is more specific, and requires that two of the appointive members shall be practical school men who shall have had at least four years' experience in actual school work, two years of which shall have been in the State of Oklahoma. South Dakota laws contain the following provision: "They shall be persons of probity and wisdom and selected among the best and best-known citizens." The Maryland law requires that "members must be of high character, integrity, and capacity." The North Dakota (1915) legislation provides that the State board of regents "shall consist of five members, all of whom shall be equally qualified electors and taxpayers of the State, appointed for their fitness and ability to efficiently serve the people of the State in such capacity." Under this provision the board is composed of two business men and farmers, a lawyer, a former governor and business man, and a physician. The Iowa board shows the following composition: Lawyer, editor, engineer and contractor, two bankers, and a merchant and banker. This board selects from outside its own membership a committee of three, called the finance committee. This body has charge of all the financial transactions of the institutions under the management of the board. According to Mr. W. H. Gemmill, the secretary of the State board, the finance committee performs the executive functions of the board, and in reality is "the eyes and ears of the board." This committee was formerly composed of two editors and Mr. Gemmill, who was superintendent of schools at Carroll, Iowa. Of course the members of the finance committee devote their entire time to committee work. A discussion of the composition of these boards is not offered to prove that the bodies in these States are of higher character than in those where no qualifications are required. The distinctive feature is that they are chosen to perform a definite function and are compensated for it.

**Opinions concerning value of types of control.**—Letters were addressed to a number of State educational officers and normal-school presidents requesting statements of their opinions concerning the best type of normal-school control. Naturally, most of the replies contained statements approving of the form of control now existing in the State in question. The reasons given for this approval are often illuminating, however, and valuable comparisons between several States are often included in these replies, a number of which are quoted, in part, below.

Principal J. M. Green, of the Trenton (N. J.) State Normal Schools, concludes, "I am of the opinion that it is an advantage to have all the State normal schools of the State under one board."

Mr. W. H. Gemmill, secretary of the Iowa State Board of Education, writes:

While the single board of education for the management of the State educational institutions has been in existence only a few years, yet I assure you that the results already secured have far exceeded the expectations of the framers of the measure. The people of this State are convinced that the statute is a wise one, and the State board of education has the confidence and support of the leading people among all classes.

President G. E. Maxwell, of the Winona State Normal School, of Winona, Minn., summarizes the advantage of control by a single State board for normal schools in this paragraph:

Our unit board for all normal schools has proved a very excellent arrangement. It serves to bring a well-conceived and harmonious budget to the legislature, which has not failed in several sessions to appropriate every cent asked for. It unifies the schools, prevents unsafe and disorganizing forms of competition for students, maintains uniformity of standards of admission, instruction, and graduation.

President John H. Keith, of the State Normal School at Oshkosh, Wis., says:

My judgment is that the single board for the control of the normal schools of the State works out very effectively. I had formerly been used to a board for each school, as in Illinois. There are, of course, certain advantages in having a board of trustees for each school. There are also certain disadvantages. My judgment is that the single board for all normal schools of the State is preferable.

Mr. Keith adds this comment:

Perhaps the greatest merit of the system as it has appeared in Wisconsin is that the normal schools have not had to take any backward step. A nonpaid, nonexpert board has to be convinced that a proposal meets a social need and that it is a wise, sensible method of meeting it. When the board is thus convinced, mistakes are infrequent.

President Charles McKenny, of the Ypsilanti (Mich.) State Normal, says:-

In comparing the administration of Michigan normal schools with that of other States, I think I am warranted in saying that the administration of the State board has been relatively efficient.

The Michigan State board is peculiar in that it has only four members and is elected by popular vote. In regard to the latter feature Mr. McKenny comments:

I am inclined to think from observation in Michigan and Wisconsin that, so far as these two States are concerned, at least as good a quality of men has been chosen by popular election for regents of the university and for members of the State board of education in Michigan as was appointed by the governor of Wisconsin to similar boards. \* \* \* While theoretically a board of four is not ideal, as there is always a possibility of a deadlock, the practical working out of the problem in Michigan for the past 15 years has been in all respects creditable.

A criticism of unit control is made by Principal H. H. Roberts, of the Las Vegas (N. Mex.) Normal University. Mr. Roberts states:

For the past five years this institution has been practically governed by the president. The board of regents meets from time to time to pass upon his recommendations, but each employee is employed and dismissed with the full assurance that his actions would be approved by the regents. Previous to that the board attempted to govern everything. Since the new régime the school has grown from 227 pupils for the nine months to practically 400, and the summer school from 69 to 430. I am convinced that the less the board has to do with the operations of a school the better it is for the school. If the president can not control the school, they should dismiss him and secure some one who can. \* \* \* I do not believe in a single body over all the institutions of the State. There is only one possible conclusion of this, and that is that some one will dominate the whole board to the advantage of one institution. Initiative could do little under such conditions.

Commissioner of Education David Snedden, in commenting on the Massachusetts system, says:

My conviction is that the training of the teachers for the public schools of any particular State should be under one authority, even though several schools distributed through the State are devoted to the work. It might be well to have local advisory committees of citizens.

President E. W. Bohannon, of the Duluth (Minn.) State Normal School, offers the following argument in favor of a single State normal-school board. Mr. Bohannon says:

I have had experience in educational work in four States—Indiana, Illinois, Massachusetts, and Minnesota. It is my judgment that the administrative system for the normal schools in Minnesota is decidedly better than that in the other States mentioned. \* \* \* I think it is advantageous to have these schools in charge of such a board rather than a State board of education intrusted at the same time with other responsibilities of an educational character. They are more likely to show initiative and far less likely to become mechanized, stereotyped, and bureaucratic. It is more immediately incumbent upon them to acquaint themselves with the demands made upon them and to devise ways and means of meeting them. They are more likely to experience the impetus to effort that comes from doing things on their own initiative. I do not believe there are any public boards which render so high a grade of service as the nonsalaried board, when rightly constituted. I know that no salary could obtain for Minnesota the quality of service which the State normal school board has rendered, and I am perfectly certain that a State board of education would not be composed of men who would render services of like value. The duties would be too heavy for a nonsalaried board.

An excellent judicial discussion of the advantages of control by local boards versus control by a single State board is contained in the following quotation from a letter written by President David Felmley, of the State Normal University at Normal, Ill. In this State at present control of each school by a separate local board of trustees prevails. Writing concerning his own board, Mr. Felmley says:

Because of the size of the board and its infrequent meetings, great authority is placed in the hands of the president of the institution. He is expected to

recommend all appointments and dismissals of teachers, all increases in salaries, etc., and his recommendations are acted upon without amendment. In 15 years only one case has occurred in which recommendations of this kind were not promptly ratified, usually with very little discussion. In that case, after some discussion, the president changed his recommendation, which then was indorsed.

While the centering of power and responsibility in the hands of the president adds much to the promptness and directness with which things are brought to pass, nevertheless there are certain disadvantages in our system. The infrequent meetings of the board and the large size of the board both tend to diminish the sense of responsibility in the members and their active personal interest in the institution. Yet it must be said that some members of this board have, in spite of these tendencies, been of very high service to the institution. This has been due to the high character of the men who have composed the board and to the fact that usually half of them are active teachers and superintendents and to the long terms through which they have continued in office. Judge Green, of Cairo, served for 41 years; Supt. E. A. Gastman, of Decatur, for 36 years; Mrs. Ella Flagg Young served for 25 years; and many others for more than 20 years.

I am inclined to believe that a board of six, such as is found in connection with the younger normal schools, chosen from the territory immediately tributary to the normal school and holding more frequent meetings, is likely to be a more efficient body.

The efficiency and economy commission of Illinois has recommended one board for the five State normal schools. The normal school presidents themselves are inclined to prefer the present arrangements, for they believe that 35 men, residing usually in as many different counties and with the interests of a single institution at heart, are more likely to feel the personal responsibility for the welfare of that institution, are more likely to interest school boards in employing normal-school graduates and prospective teachers in attending normal schools than if a single board of a few members is charged with the entire responsibility.

It is believed that the total expense of the present board of 35 is no greater than the expense of a unit board of 9, if they give the same measure of attention to the various normal schools as is now given.

On the other hand, it must be confessed that the normal schools find great difficulty in securing unity of procedure in entrance requirements, in graduation requirements, in their definition of a unit of credit, in their fees required of students of different classes, in the amount of credit given to work in other institutions, etc.

While it is not desirable that the State normal schools of Illinois should have identical courses of study, it is important that they should have equivalent courses of study and that the units of credit should be equivalent and interchangeable. This we have been unable to bring to pass under the present organization.

Finally, an extreme plea for the absolute local autonomy of each normal school with no restrictions from any central State authorities may be noted in the following quotation from a letter by John R. Kirk, president of the State Normal School at Kirksville, Mo. In Missouri each normal school is controlled by a local board of trustees. Mr. Kirk says:

There is no direct relation of the normal school to the State board of education. This is fortunate, since the normal school is closer to its constituents (the people, the school boards, and the public schools) than any State board of



education can possibly be. Each normal school, therefore, adapts itself to the community which it is appointed to serve, and no normal school is obliged to conform to what the other normal schools of the State find themselves required to do. \* \* \*

I might say, in conclusion, that the normal schools of Missouri, by virtue of their organization and great freedom, are among the most fortunate in the country. They are not dominated by [a State] commissioner of education \* \* \*. They are not subordinated to the State university as normal schools in many other States are. They have no respect for the traditions of those men and institutions who think that the normal schools should offer a short cut to "professional education." Missouri normal schools stand for the idea that the normal-school graduate should be introduced to his profession by the normal school and should thereby be placed on a par with the graduate of the medical college and law school so as not to need recasting and relabeling by a university or any other institution.

*Conclusions.—I. The results of any study of this nature are only further evidence, but not unquestioned, of the general tendency toward administrative centralization.* The tendency of recent legislation is evidence of the general movement to centralize responsibility and power in normal school control, and, in fact, in all educational matters. Any review of legislation would be impossible in this paper, but the facts relating to the most recent legislation may be briefly enumerated. At least two States have passed during the present year legislation providing for greater centralization of power. California has abolished her joint board of normal school control and vested its powers in the State board of education. North Dakota has a new law creating a State board of regents, a body which is to take over the functions of the former "State board of normal school trustees" and to have charge of the higher institutions of the State. A normal-school president in North Dakota says, in explaining the change of control, that "it was unnecessary duplication and extravagant use of money that led to the board of regents."

II. The recent legislation indicates a demand for *educational qualifications for the appointive members of the administrative boards.* There seems to be a recognition of the fact that such bodies to be efficient must have clearly defined functions and be composed of persons who are capable of administering the business. Ex officio boards are rightly passing away.

III. Though there are widely different views, my own investigation causes me to favor a *single board* given sufficient power and so organized as to act effectively *as the administrative head of the State public-school system.* To meet the objections of extreme centralization a local advisory body properly constituted and organized might well work in conjunction with such a State body.

IV. *The status of the principal or president of the normal school should be determined.* Though the study does not make this a major point in the investigation, one at once is impressed with the issue.

The prominent fact is that principals possess all degrees of power and responsibility. New York and Connecticut represent two extremes. In New York the principal is responsible to the commissioner of education for the general management and direction of the school. In regard to Connecticut Mr. Charles D. Hine, secretary of the State board, says: "There is no State supervision of the normal schools. The principals substantially control the schools. They are not in accord except in the strong purpose to be unmolested."

## Section II. INTERPRETATIVE DISCUSSION OF FACTORS IN ADMINISTRATIVE CONTROL OF STATE NORMAL SCHOOLS.

In the preceding section of this chapter a concrete discussion of the present status of State normal school control was presented by Mr. Henry. His study was based on State educational codes and wide correspondence with educational officials. In the present section the authors of the bulletin present their own interpretative discussion of some of the factors involved in the administration of State normal schools.

**Types of governing authorities of State normal schools.**—Among the existing forms of governing authorities of State normal schools as described by Mr. Henry, many types are found, each of which involves some one of the following elements, or combinations of several of them:

1. State superintendent or commissioner of public instruction.
  - (a) With relatively permanent tenure, or
  - (b) Elected for a short period of years.
  - (c) Chosen because he is an educational expert, or
  - (d) Elected because of political affiliations.
2. State boards of education or State educational administrative boards or State normal school boards. These may vary in the same ways as indicated under number 1.
3. Local boards of trustees.
4. The principal or president of a single normal school.
5. The faculty of a single normal school.

**Local boards of trustees usually do not determine educational policies.**—As a rule, a local board of trustees in charge of a single normal school plays very little part in determining the educational policies of the school. For the most part such boards are not composed of persons who are in a position to know the educational needs of the State. They generally supervise the expenditure of the State funds and are often active in soliciting such funds from the legislature. They usually approve automatically any educational policies put up to them by the more purely educational officers, such as the president of the normal school. Consequently, the part played by local boards of trustees will not be considered further in this chapter.

**Faculties usually not composed of general educational experts.**—Probably in most normal schools the most influential parties in determining the policies of the school are the faculty and the president. It is commonly assumed that the faculty of an institution is best qualified to determine its general educational policies. In some instances this may be true, but in many it is not. The teachers in higher educational institutions, including normal schools, are not employed, as a rule, because they are general educational experts, but because each one is presumably an expert in some specialized subjects or in several related subjects. The individual teacher usually has little interest or competence in general educational problems. In nearly all questions of general policy that arise, his point of view is determined by the interests of his special department. Consequently legislation by such a group of specialists becomes largely a problem of balancing the wishes and claims of a group of specialists. Even if the result were determined by mathematical averaging (as is sometimes the case), the courses of study and other products of faculty deliberations would not correspond to the real needs of the prospective teachers attending the normal school. The matter is made even worse, however, when certain dominant personalities in the faculty secure a disproportionately large recognition of the claims of their departments, resulting in overemphasis on some one subject, such as the history of education, or psychology, or nature study, or art, or any other subject. Furthermore, special difficulty is usually encountered under schemes of faculty control in securing a proper development of the practice teaching situation, which, as will be seen in the next chapter, is one of the most important factors in the successful training of teachers.

**Normal-school president is most dominant influence in many systems.**—Very often, even when the faculty is nominally in control of the educational policies of a normal school, these are really determined by the president. So powerful is this presidential control in some American schools that their characteristics are generally attributed to the presidents (or principals) by outside educators who are familiar with them. Under this type of leadership some of the schools have served the interests of the State admirably, sometimes for a whole generation under one president. When such a man is a competent general educational expert and administrator, objectively interested in the educational welfare of the whole State, he usually succeeds in maintaining a normal school with a course of study nicely balanced according to the real needs of public-school teachers, and a practice-teaching situation in which all of the efforts of the institution are centralized and by which all departments are tested.

**Central State educational officers sometimes supervise normal schools.**—In some States a central educational authority of the State

supervises to some extent the activities of the normal schools. This authority may reside in some type of State board or in the State superintendent. The possibilities of such authorities modifying the normal-school situation in a State are well illustrated in New Hampshire, Massachusetts, and Kansas.

*New Hampshire normal school changed through action of State superintendent.*—In New Hampshire the law requires that "the superintendent of public instruction in his annual (biennial) report shall state the condition of the [normal] school (schools), the terms of admission and graduation, the times of the commencement and close of the sessions." Acting under this law, State Supt. Morrison included the following items in his report for 1911-12 (p. 156) concerning the normal school at Plymouth:

*Financial.*—In the last report of this office (1909-10) the following statement was made:

"The management of the income of the Plymouth school has for some time been growing lax and in some items extravagant. The matter has been called to the attention of the trustees, and I have no reason to doubt that they will take prompt steps to correct the evil."

On December 28, 1910, after several weeks of careful investigation, I addressed a communication to the board of trustees, calling attention in detail to what seemed to be extravagant and unauthorized expenditure of the public funds. The matter was taken up by the board at a meeting held early in the month of January, and a firm of expert accountants was employed by Gov. Bass. The report of the accountants revealed a very untoward condition of the finances of the institution, involving entirely improper use of public money, as well as numerous unauthorized expenditures extending over a period of years. The matter received prolonged consideration by the board, and the accountants, as well as the principal and his attorney, were heard. On July 16, 1911, the principal's resignation was accepted.

The Keene finances were meantime well conducted.

The entire arrangement for financial administration at Plymouth was changed.

In discussing the *educational* policies of the State normal schools, Supt. Morrison describes the steps taken by the State department to improve the course of study and the quality of the teaching in the two State schools. This description will be quoted in a later chapter on course of study.

*Critical studies of Massachusetts normal schools, directed by Commissioner Snedden.*—In Massachusetts we find State Commissioner Snedden attacking the problems in a much larger normal-school situation than that of New Hampshire. In his report for 1912-13 he describes the initial steps in getting the normal-school authorities to make a critical study of their own practices. The need of such critical study and the possibility of a central State authority's securing the cooperation of local normal school authorities in improving their own activities are tactfully suggested (pp. 24-26) by Mr. Snedden in the following paragraphs:

Marked differences have always existed among the normal schools as regards courses of study and requirements for practice teaching. Each school has ex-

hibited considerable individuality in the matter of its aims, means, and methods of instruction, thus often reflecting the particular educational philosophy of the principal or the composite opinion of the stronger members of the faculty. Within reasonable limits this is an excellent policy. It is not desirable that all the schools should be of one pattern as regards their courses and methods of instruction, although, as suggested elsewhere, general standards as to aims and practices should be agreed upon by all schools, after which departure from such standards may be made by individual schools as matters of conscious and purposeful policy.

It is not practicable in this report to indicate in detail the differences which have hitherto existed among the normal schools in their programs of professional training. Some of these differences have arisen from praiseworthy attempts to do experimental work in new and complex fields of education. In other cases practices established by accident or for temporary reasons have become fixed as customs, the educational value of which must be carefully tested from time to time.

All educational practice is now in process of slow transition from a primitive stage of development, in which customs accidentally initiated, or formed by slow growth, have prevailed to a stage wherein intelligent planning and the measurement of results shall give the basis of a more scientific formulation and control of courses of instruction, methods of teaching, and general supervision.

Because of these changing conditions the commissioner, the principals, and various groups of special teachers in the normal schools have, during the last four years, been holding a series of conferences at which existing programs of normal-school instruction have been subjected to careful examination in order to discover means of making these programs more effective.

These conferences have revealed a wide divergence of views on almost every phase of normal-school instruction. Each school, in one or more divisions of its work, had long followed practices which seemed to it valid. The discussion and analysis involved in these conferences resulted temporarily in a measurable unsettling of convictions, often lifelong, held by many teachers. This disturbance has now wholly subsided, but in all the schools a fine and sound professional spirit has been shown in the effort to revise normal-school programs in the interest of greater efficiency. Some of the proposals to this end, now under consideration, are discussed in the following section of this report.

Because of the complexity of the problems involved in training teachers, it is as yet too early either to indicate positively the prevailing forms of inefficiency in normal-school programs, or to state concretely proposed improvements. A scientific attitude necessitates careful and painstaking study of these problems. Existing practices can not, with safety, be discontinued or hastily modified. It is, however, highly important that the principals and teachers in the normal schools shall show that they are alive to the need of steady improvement in educational practice, and that, individually, and especially by joint effort, they shall continue to give time and effort to the discovery of ways and means to secure greater efficiency.

*Kansas State normal-school system changed by the State administrative board.*—The third example which we shall note of a central general educational authority modifying the normal schools of the State is the work of the State administrative board of Kansas. This board was organized in 1913 to have administrative charge of all of the higher educational institutions of the State. It is a salaried

board, but the members of it are not educational experts. The board has been very active in reorganizing the normal-school situation in the State, and some statements of its procedures are contained in the following quotations from its official reports. Its general plan of administration is described in the following paragraphs:

In accordance with the direction of the law, we organized on March 20, 1913, and although there was no provision to pay our salaries, we found it necessary to spend all our time in the schools until July 1, when we took full charge. We met with the retiring boards and worked on the catalogues and courses of study submitted to us by the faculties, passed on the budgets and nominations made by the presidents, and had the necessary work which we were directed to do in shape on July 1, 1913, when the old boards went out of existence. Since that time we have been in continuous session.

The board of administration, as soon as it organized, called in the heads of the institutions for a conference and announced to them that it would hold each of them strictly responsible for the internal management of his institution and would not attempt any unnecessary internal management. As it visited the schools, it completed its work by reelecting all members of the faculties recommended by the presidents and filled vacancies upon their recommendation. The board has consistently followed this plan from the beginning.

The board has met with the presidents each month and thoroughly canvassed the question as to the kinds of teachers to be employed in the schools and all other problems involving their welfare, and we wish to express to Chancellor Strong, Presidents Waters, Butcher, Brandenburg, and Lewis our gratitude for the way they have put aside their individual interests and advised with the board for the good of the system as a whole. \* \* \*

#### CONSOLIDATION OF BUSINESS OFFICES AND PURCHASING DEPARTMENTS.

The board found that each of the institutions was maintaining elaborate business offices and purchasing departments, and for economy and efficiency in buying consolidated them all at Manhattan until room could be secured in the statehouse. It is thus able to do the work for all the schools at what it formerly cost to do the work at one school. The saving is thousands of dollars. Instead of purchasing at retail and in small lots, we have joined with the boards of control and correction, buying in large lots direct from the manufacturer. We thus save the difference between the manufacturer's price and the retailer's price—a large item of saving for the State.

#### UNIFORM REGISTRATION SYSTEM.

We have put in a uniform system of registration and record keeping and evaluation of credits, and can now transfer clerks and students' grades from one school to another, so that they will be able to take up the system without trouble. We have also installed in all the schools an up-to-date system, by which it will be possible to refer promptly, and without expense of time, to the grades of every person who attends the institutions. We have been put to a great deal of trouble and expense in searching through odds and ends of old records in some of the institutions, frequently having to go back to the old class books of instructors to find the grades of students who desired to complete their work in that or other institutions. A careful system of keeping these all-important records in these institutions would have saved thousands of dollars. \* \* \*

## ADMISSION TO THE NORMAL, COLLEGE, AND UNIVERSITY, AND HIGH-SCHOOL VISITATION.

The institutions of higher learning in the United States are pretty thoroughly standardized. In order that the institutions under our control shall maintain their standing in these associations and make their degrees of any value, it is necessary not only that they shall do good work themselves, but also that they shall know and certify the work of preparatory schools whose students they take without examination. They must either examine the school that is preparing the student or examine the pupil when he appears for admission. The first plan has become the accepted one, and when we began our duties the university, the agricultural college, and the normals each maintained a separate system of visitation in the high schools. The result of this system was that the representatives of all these institutions would frequently visit one high school during the year, and none of them reached every high school. We established a committee on school relations to do the work of visitation systematically.

*Michigan and Minnesota.*—The three examples described above, namely, New Hampshire, Massachusetts, and Kansas, depict situations in which specialized, salaried State officers took an active part in the control of State normal schools. The operation of another type of central control is seen in the cases of Michigan and Minnesota, where a nonsalaried, special, central State board has charge of the normal schools of each State, and this board in each case is influenced more or less by recommendations from the presidents of the State normal schools. Sometimes the board appears to follow the recommendations of the presidents of the several schools, and in other cases to act more independently. An example of the actions of the Michigan board is given below on page 117 (concerning special teachers) and of the Minnesota board on pages 102–104 (concerning training high-school teachers). More complete historical descriptions of typical developments in cases where the presidents of the State normal schools have cooperated with such a central board of control would be illuminating in determining the value of this type of administrative arrangement. To some observers it would seem to be the best type, since it may involve a committee of educational experts (normal-school presidents) presenting joint recommendations to a responsible board which represents the people of the State and the interests of all sections of the State. It is probably desirable to have the State superintendent of public instruction an active member of the board which controls the normal schools in order to bring to the assistance of this board such expert services as he and his office can render.

## Chapter V.

### PRACTICE-TEACHING FACILITIES.

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**An important factor in determining success of normal school.—**One of the most important factors in determining the possible and actual success of a normal school is the practice-teaching facilities. This fact is generally recognized and admitted by most normal-school authorities, and has been referred to in Chapter III, where one of the four conditions which was emphasized in determining the location of a normal school in a town was the possibility of expanding the practice-teaching facilities so as to take care of any number of students that may come to a normal school.

**Zone of normal school should be limited by practice facilities.—**Where an existing normal school is unfortunately located so that the limit of adequate practice-teaching facilities is reached, the State authorities should take cognizance of this fact, place a limit on the attendance at the normal school and a proportionate limit on the funds devoted to its maintenance; so restrict its zone or district that the latter will be adequately served; and proceed to establish a new normal school, so located that it may always provide adequate practice facilities for the area it is to serve.

*New Hampshire normal schools so planned.—*That the development of the normal-school policy of a State may actually follow these lines is shown in the report of State Supt. Morrison, of New Hampshire, from which quotations have already been made. In the quotation concerning the Plymouth Normal School (see above, p. 23) Mr. Morrison stated that the practice-teaching facilities restrict the growth of this school to 150 students and are hardly adequate for this number. According to the same report, the public schools of Plymouth enroll about 300 to 350 children who are 14 years of age and under. On the other hand, Mr. Morrison estimates that the Keene Normal School could take care of an annual enrollment of 480. The public schools of Keene enroll from 1,100 to 1,200 children 14 years of age and under. From these figures it would appear that Mr. Morrison estimates that the schools which are available for practice purposes of a normal school that maintains only a two-year course for high-school graduates should contain from two and one-half to three times as many pupils as there are students in the normal school. The amount of



practice which Mr. Morrison contemplates is contained in his statement that "each student before graduation must 'make good' by teaching one-half of each school day for 18 weeks in the practice schools, being responsible for the conduct of classrooms for that time." (P. 153.)

**Standard needed for amount of practice teaching per graduate.**—The last paragraph suggests that, in order to carry out the policies described above, it is necessary to determine some measure or standard by which the practice-teaching facilities of a town can be measured. Obviously the first step in determining this standard is to ascertain how much practice teaching should be required of each normal-school graduate, and the conditions under which it should be done.

*Practice-teaching conditions should approximate real conditions.*—To take up the question of conditions first, it is generally admitted that the closer these approximate the real situations as they exist in ordinary public schools the better. This means from 40 to 60 children in a room divided into not more than two sections. A further condition is the possibility of placing a practice teacher in charge of this situation for a somewhat continuous period—for example, every morning for from 4 to 18 weeks. This does not mean that all the practice teaching in a given normal school need be done under these conditions, since a student may profit a great deal from teaching much smaller groups of children for a half hour a day for several weeks. But to get the *best* results, the more continuous practice under typical school conditions should also be provided. It *is* provided in a great many situations; hence it *can* be provided, and all normal schools should be so located as to make possible such provision. As long as it is easily possible to secure the *best* conditions, there is no justification for being satisfied with *inferior* provisions.

*Artificial training school plus subsidy of local public schools.*—The two types of conditions described above, namely, small groups of children under somewhat artificial conditions for initial practice teaching plus regular full rooms for longer continuous teaching under real public-school conditions, are secured by constructing a large training or practice school under the direct charge of the normal school, and making arrangements with the local city authorities for practice teaching in the regular public schools. Such an arrangement is usually effected by State subsidy of some form to the local public schools. This subsidy may take a variety of forms; for example, it may involve the normal school's paying an increase of salary to certain of the teachers who act as critic teachers, or paying all of the salaries of such critic teachers, or increasing the salaries of all teachers, etc. In addition to the subsidy, the normal school sometimes furnishes gratis expert supervision for part or all of the activities of the public schools that are used for practice teaching. In a few cases the public

schools are placed entirely under the direction of a normal-school officer.

**Examples.** *Mayville, N. Dak., using town schools (1912).*—The following are typical examples of arrangements for practice teaching in public-school systems. The 1912 report (p. 64) for the State Normal School at Mayville, N. Dak., states that:

The public schools of Mayville have continued to be used as the practice department. For eight months of each school year the normal school has paid each of the grade teachers and the principal of the public schools from \$20 to \$25 per month, in addition to their regular salaries, and the local board of education \$62.50 a month toward meeting the expenses of heating and janitor service in the public-school building. The total cost per year to the normal school has been about \$1,700. In return for this outlay the normal school has been permitted to let the members of its senior class, under the direction of the normal-school supervisor of practice, observe and teach in the grades at certain hours of the day throughout the eight months of the year when both schools are in session. The supervisor of practice has received the assistance of the public-school principal and grade teachers in the management and instruction of the senior class.

*New Hampshire contracts give State charge of local practice schools.*—In New Hampshire—

contracts with the local communities give the normal schools the use of the entire elementary system in the town of Plymouth and in the city of Keene for model and practice purposes.

*At De Kalb, Ill.,* a town of 8,000 population—

all practice teaching is done in the city schools. Two schools are used for this purpose. One of them is in the normal training school building; the other is in one of the city buildings. Each is an eight-grade school.

The director of the training department is also superintendent of schools of the city.

*Providence, R. I.; normal training school plus many "training stations" in public schools.*—Finally, one of the most completely developed practice teaching situations, as far as facilities are concerned, is that of the State Normal School of Providence, R. I. The regular enrollment of the normal school for 1913-14 was 460 students, all high-school graduates. The number in the graduating class for 1913-14 was 134. To provide practice teaching facilities for this number the normal school has a training school of its own, 9 other "training stations" in the public schools of Providence, and 15 "training stations" in neighboring towns. The official description of this elaborate system is given in the following quotation from the catalogue for May, 1914 (p. 30):

#### THE SCHOOL OF OBSERVATION.

The school of observation, on the first floor of the normal building, comprises a kindergarten and eight grades, with one room for each grade and

one ungraded room. There are about 40 pupils in each of the regular grade rooms. Most of these children come from the city district adjoining the building. Others from outside the district may be admitted on the payment of tuition at the rate of \$32 a year for the kindergarten and primary grades or \$40 a year for grammar grades.

The course of study in this school is similar to that in the Providence public schools. The same subjects are taught and the same books are used. In addition, much time is given to various forms of practical training. The girls have sewing in grades 5 and 8, and cooking in grades 6 and 7. The boys have wood and metal work or printing.

An effort has been made to connect the manual training as closely as possible with elementary science, in which many of the boys have become greatly interested.

The functions served by the school of observation are as follows:

1. It furnishes opportunity for the students of the normal school to see good teaching. It supplies illustrative material for class discussions on methods. Lesson plans may here be tested and criticized from experience, instead of on a theoretical or imaginary basis. It is to the normal school what the clinic is to the school of medicine. It helps to keep the work of the normal school on the right basis by constantly magnifying the practical instead of the theoretical. It gives a worthy ideal to the prospective teacher.

2. It furnishes under the most helpful and encouraging conditions an opportunity for the young teacher to begin her practice teaching. For one hour of the day the school may be used for this work. The rest of the day the children spend under the regular grade teachers. By having this preliminary practice so closely connected with the study of methods, something more is added to the discussions than could be gotten from observation alone. At the same time the student has an opportunity to do her first teaching in a most stimulating environment, and with little responsibility for the general discipline of the room. Her first effort may thus be given to a masterly presentation of her subject, unhampered by needlessly disturbing conditions. She gains confidence in her own ability, learns to be critical of herself and to accept criticism from others, and in a measure gets the professional point of view, which is, essentially, that by continued endeavor and the wise use of aids of various sorts, it is possible to continually improve in skill and general teaching ability. She is brought to a recognition of the fact that good teaching is fundamental to discipline. It follows that the young teacher is here trained to emphasize the essential matters, and that she is well fitted for the next step in her preparation, the training school.

3. It is a meeting place for theory and practice in the school itself, offering to teachers in the different departments facilities for testing themselves and their own methods in the light of experience with the children for whom the work is intended.

4. It should illustrate for those teaching elsewhere the methods and courses recommended by the normal school. The school of observation should be the model school through which the State may present, as far as possible, its ideal of a satisfactory public school. It should not attempt to carry on its work expensively or to include courses which may not to advantage be included in other public schools. Its aim should be to show how a course of study that is truly efficient in its results may at the same time be conducted with economy.

5. While the main functions of the observation school are those expressed above, it would not fulfill its duty to the State if it did not provide opportunity for the study and evaluation of new ideas which seem to give special promise of worth. Its work with the Montessori material is an illustration of this point.

## THE TRAINING SCHOOLS.

The training schools are established by contract with the local authorities. At present there are 24 such centers established as follows:

	Grades for practice.
Barrington: Lincoln Avenue School.....	5-7
Bristol:	
Oliver School.....	1, 5
Walley School.....	4, 5
Burrillville: Harrisville School.....	2, 4
Central Falls: Garfield Street School.....	1, 6
Cranston:	
Eden Park School.....	4, 6
Meshanticut Park School.....	1-7
East Providence Grove Avenue School.....	3, 4
Pawtucket:	
East Street School.....	1, 3
Prospect Street School.....	6, 7
Providence:	
Bridgham School.....	5, 6
Doyle Avenue School.....	5, 6
Branch Avenue School.....	3, 4
Grove Street School.....	2, 3
Regent Avenue School.....	1, 3
Temple Street School.....	3, 4
Thayer Street Grammar School.....	5, 7
Willow Street School.....	1, 3
Camp Street School.....	1-4
South Kingston: West Kingston School.....	1-8
Warwick: Apponaug School.....	4, 5
Westerly: Bradford.....	1-4
Woonsocket:	
Pothier School.....	3, 4
Willow Street School.....	2, 4

Each training school has a critic teacher nominated by the trustees of the normal school and elected by the school committee in the town or city in which she serves. Two of the regular schoolrooms are set aside for student teachers under her direction. Here the young teachers receive a thorough training in the actual work of the schoolroom for a full half year of apprenticeship.

This system of training embodies to a remarkable extent the recommendations of the "Report of the Committee of Fifteen on the Training of Teachers." After the first preliminary teaching in the observation school, student teachers are trained, not by making them assistants or substitutes or by giving them small groups of children, but by placing them in charge of regular schools under such conditions as they will meet after graduation. Here, during the five months of training, they are thrown on their own resources to a large extent. They learn to master the work of one grade and to teach with due regard for the development of the children; and they gain that close contact with child life, so essential to a good teacher, which can be gained only by one who is in charge of her own children.

The West Kingston Training School, of which a plan is shown [on page 52], is intended to be a model of what rural schools should be. When constructed in 1912 it took the place of four single-room buildings, and it is a clear demonstra-

tion of the possibilities of consolidation. The children are transferred to and from the school by carriages. The building is arranged as indicated by the plan of the ground floor. The problems of lighting and heating have been very satisfactorily solved; the closets are on the main floor; in the basement are a kitchen and manual training shop, which have been adequately equipped at very small expense, and a hot-air engine for pumping the supply of water.

The school is near the West Kingston railroad station and can easily be seen as one passes on the train.

**Calculation of standard for measuring practice facilities of a community.**—The examples given above are typical of the arrangements made in normal schools to secure desirable conditions for practice teaching, namely, conditions that approximate as closely as possible the real public-school conditions that will confront the new teacher when she secures a position. This discussion of conditions was in-

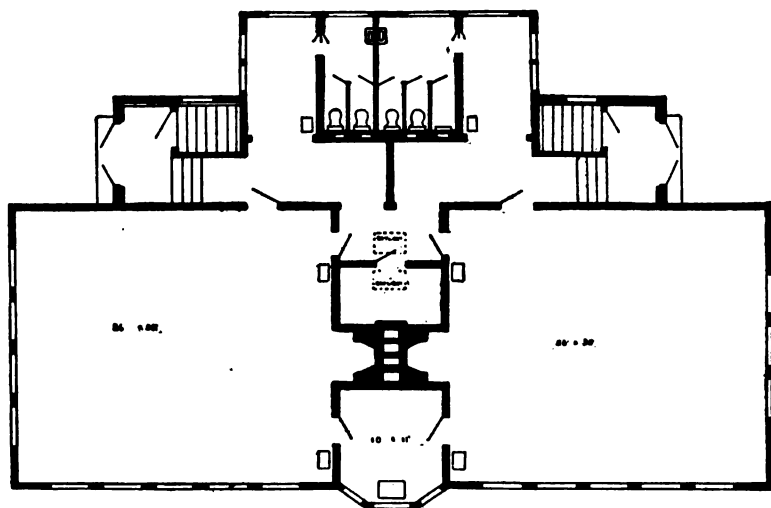


FIG. 3.—Plan of model rural school of Providence (R. I.) State Normal School, located at West Kingston.

roduced in connection with the attempt to secure some standard by which the practice-teaching facilities of a locality could be measured. The other factor entering into the determination of this standard is the amount of practice teaching to be required of each student. To simplify the calculation we shall assume that this is the amount to be provided for each graduate in a two-year normal course for high-school graduates.

*Minimum, 100 hours per graduate; maximum, 90 half days per graduate.*—To begin our analysis we need a fairly representative minimum and a fairly representative maximum of the amounts of practice teaching that would be considered necessary by normal-school authorities. As a fair maximum we may take Morrison's figure for New Hampshire, namely, teaching one-half of each school

day for one semester or half year, being responsible for the conduct of the classroom for that time. As a minimum we may use the minimum amount agreed upon by the representatives of the normal schools of Ohio, and which seems to fulfill the legal requirement in that State, namely, 100 full hours of actual teaching. This may be reduced to the basis of half days and weeks by estimating the number of hours in a regular school day. If 5 hours of teaching is considered equivalent to teaching a regular school day, the minimum of 100 hours would equal 20 full school days, or 40 half days. Forty half days are equivalent to one-half of each school day for eight weeks.

*Minimum, 4 weeks of whole days; maximum, 9 weeks of whole days.*—As maximum and minimum amounts of practice teaching, then, we would have the following figures as the amount of practice teaching to be required of each graduate: *Maximum*—18 weeks of half days, equivalent to 9 weeks of full days. *Minimum*—8 weeks of half days, equivalent to 4 weeks of full days.

Each group of children may train two-thirds or one-half times 4 to 9 practice teachers a year.—Assuming that the regular school year is 36 weeks long, we can easily calculate from these figures the number of practice teachers that could be accommodated by *one group of children*, providing all of the teaching of the children is done by practice teachers.

*With the maximum amount of teaching*—namely, 9 weeks of full days—one group of children may accommodate 4 practice teachers in a year.

*With the minimum amount of teaching*—namely, 4 weeks of full days—one group of children may accommodate 9 practice teachers in one year.

*Not all teaching may be practice teaching; corrected estimate.*—It is not likely, however, that all the teaching of a group of children will be done by practice teachers. No community is likely to permit more than half of the teaching in the public schools to be practice teaching. Moreover, many normal schools restrict the amount permitted in the training school; for example, in the quotation from the Rhode Island Bulletin given above, it was limited to one hour a day with each group of children. Most training schools permit more than this; however, probably not more than two-thirds of the teaching is usually practice teaching. Hence, in order to secure a more correct estimate of the practice teaching opportunities afforded by a single group of children, we must differentiate the specialized training school from the ordinary public school in which some practice teaching is permitted. In the training school it may be that two-thirds of the teaching will be done by practice teachers, and in the public school, one-half by practice teachers.

According to this revised estimate we secure the following standards:

*In a training school* where two-thirds of the teaching is done by practice teachers, each group of children will accommodate annually two-thirds times 4 to 9 practice teachers.

*In a public school* where one-half of the teaching is done by practice teachers, each group of children will accommodate one-half times 4 to 9 practice teachers annually.

*From 20 to 40 children constitute a "group."*—With these figures (namely, two-thirds or one-half times 4 to 9 practice teachers annually for each group of children) it is only necessary to decide how many children should constitute a group in order to determine the practice-teaching facilities available in any community. If we take our point of departure for this estimate from the idea that the conditions should closely approximate real school conditions, we would say each group for which a practice teacher is responsible should consist of either half or all of a room containing about 40 children. Except in specially constructed training-school buildings (where there are "group" rooms) the practice teacher would probably have to be in charge of a full room.

On the basis of these assumptions, with the standards obtained above, the following table is secured showing the number of practice teachers which a given number of children may accommodate annually:

*Special training-school building.*—Twenty children to a group, each group accommodating two-thirds times 4 to 9 practice teachers annually, two-thirds of the teaching being done by practice teachers.

The numbers of children which will accommodate annually certain numbers of practice teachers in special training-school buildings are as follows:

100 children,	13 to 30 teachers.
200 children,	27 to 60 teachers.
300 children,	40 to 90 teachers.
400 children,	53 to 120 teachers.
500 children,	67 to 150 teachers.
600 children,	80 to 180 teachers.
700 children,	93 to 210 teachers.

*Regular public-school building.*—Forty children to a group, each group accommodating one-half times 4 to 9 practice teachers annually, one-half of the teaching being done by practice teachers.

The numbers of children which will accommodate annually certain numbers of practice school-teachers in regular public-school buildings are as follows:

120 children,	6 to 14 teachers.
160 children,	8 to 18 teachers.

200 children, 10 to 23 teachers.

240 children, 12 to 27 teachers.

280 children, 14 to 32 teachers.

320 children, 16 to 36 teachers.

480 children, 24 to 54 teachers.

640 children, 32 to 72 teachers.

800 children, 40 to 90 teachers.

1,280 children, 64 to 144 teachers.

**Measurement of community practice facilities of typical normal schools.**—With these figures as a basis, anyone can proceed to estimate the possible practice-teaching facilities in a number of typical normal schools, using as a basis the figures for school population and average daily attendance in the public schools of the community in which the school is located as given in the report of the United States Commissioner of Education. As a matter of fact, many of the normal schools do not actually enjoy such facilities as would be indicated by these theoretical calculations, owing to the fact that they have training schools with relatively few children, or they have not succeeded in making arrangements whereby they can utilize half of the time in the public schools for practice-teaching purposes. As a consequence some normal schools have outgrown the most liberal estimate of practice-teaching facilities at their command, while others will soon do so if they begin to provide the number of trained teachers needed in their districts.



## Chapter VI.

### STUDENTS AND GRADUATES.

Numbers significant only in relation to educational policy.—To know the absolute number of students in the various State normal schools is of little importance. On the other hand, to be able to relate the number of students to their rank, to the practice-teaching facilities of the locality, to the scheme of certification in force in each State, and to the cost of instruction would be quite instructive in determining the value of various types of normal-school policy.

Reliable data even on attendance are difficult to secure.—Unfortunately, up to the present time it has not even been possible to secure reliable published figures of the absolute size of most normal schools in terms of the number of students under instruction at any one time. This is due to the fact that so many normal schools simply give in their catalogues and published reports the number of *different* students enrolled during the year, including the summer term. Inasmuch as many of these students are in attendance for only six weeks, the data merely confuse instead of enlightening the reader.

Exceptional and excellent statistics by Supt. Evans, of Missouri.—The possibility of making a clear and illuminating report on normal-school attendance in a State where there are many short-term students to complicate the situation is illustrated by the accompanying table from the 1913 report of State Supt. Evans, of Missouri.

[Missouri] State Normal School statistics [1912-13].

[A model table concerning students and faculty.]

Years.	Kirksville.		Warrensburg.		Cape Girardeau.		Springfield.		Maryville.	
	High-school rank.	College rank.	High-school rank.	College rank.	High-school rank.	College rank.	High-school rank.	College rank.	High-school rank.	College rank.
Students enrolled in fall term of 1912:										
First year.....	50	110	101	203	70	96	108	84	78	47
Second year.....	100	60	100	133	75	65	91	57	54	34
Third year.....	120	75	47	17	56	10	71	19	31	.....
Fourth year.....	111	45	68	1	52	3	54	6	34	.....
Total.....	381	290	316	354	253	174	324	166	197	81
Students enrolled in winter term of 1912-13:										
First year.....	50	102	109	196	97	99	118	93	89	51
Second year.....	110	80	108	162	70	65	102	81	52	35
Third year.....	120	85	55	20	57	13	80	19	32	.....
Fourth year.....	125	45	58	.....	42	5	66	6	47	.....
Total.....	405	312	330	378	266	182	366	199	220	86

## [Missouri] State Normal School statistics [1912-13]—Continued.

Years.	Kirksville.		Warrensburg.		Cape Girardeau.		Springfield.		Maryville.	
	High-school rank.	College rank.	High-school rank.	College rank.	High-school rank.	College rank.	High-school rank.	College rank.	High-school rank.	College rank.
Students enrolled in spring term of 1913:										
First year.....	15	110	105	205	223	76	225	119	40	61
Second year.....	80	80	102	178	92	64	231	88	37	33
Third year.....	103	80	60	33	46	61	118	22	20	.....
Fourth year.....	103	45	77	.....	49	3	94	8	36	.....
Total.....	301	315	344	416	410	204	668	237	133	94
Students enrolled from September, 1912, to May, 1913:										
First year.....	75	135	135	235	251	90	271	197	77	79
Second year.....	145	95	144	175	100	84	239	166	88	40
Third year.....	195	93	108	41	73	61	180	26	38	.....
Fourth year.....	183	52	120	5	70	3	133	8	62	.....
Total.....	598	375	507	456	494	238	823	397	265	119
Students enrolled in summer term of 1913:										
First year.....	35	190	199	442	161	126	240	218	65	101
Second year.....	130	140	232	187	96	71	217	164	105	31
Third year.....	153	100	189	76	53	35	254	44	89	.....
Fourth year.....	170	60	109	3	65	9	206	32	124	.....
Total.....	488	490	729	708	375	241	917	458	383	132

## [Missouri] State Normal School statistics [1912-13]—Continued.

	Kirksville.	Warrensburg.	Cape Girardeau.	Springfield.	Maryville.
Men in faculty, regular term.....	31	26	18	16	15
Women in faculty, regular term.....	25	25	19	17	10
Total number in faculty, regular term.....	56	51	37	33	25
Men in faculty, summer term.....	37	34	18	23	20
Women in faculty, summer term.....	24	31	12	26	12
Total number in faculty, summer term.....	61	65	30	49	32
Students attending all the year, Sept., 1912, to May, 1913.....	436	499	330	363	154
Number enrolled, fall term, 1913, who were enrolled preceding year.....	360	306	210	347	116
Number enrolled in 1912 who hold four-year high-school diplomas.....	470	396	415	588	130
Number enrolled in 1912 who had no experience in teaching.....	700	898	492	429	408
Number enrolled in 1912 who had less than two years' experience.....	389	439	238	632	128
Number enrolled in 1912 who had two and less than five years' experience.....	290	416	211	709	134
Number enrolled in 1912 who had five or more years' experience.....	300	241	131	248	106
Number of different persons enrolled in 1912:					
Male.....	652	479	373	781	165
Female.....	1,027	1,515	699	1,237	617
Total.....	1,679	1,994	1,072	2,018	782
Number enrolled from September, 1912, to August, 1913, in the following courses:					
Education.....	1,450	3,534	1,738	4,123	953
Vocal music.....	900	566	565	810	202
Agriculture.....	500	959	294	518	259
Nature study.....	100	164	28	79	.....
Cooking.....	60	172	124	265	143
Plain sewing.....	50	104	236	94	87
Dressmaking.....	.....	68	53	137	.....
Free-hand drawing.....	400	489	486	1,360	263
Mechanical drawing.....	15	32	58	41	17
Elementary hand work.....	150	59	117	431	205
Woodwork.....	400	54	173	63	119
Forge and machine shop work.....	30	56	24	.....	.....

[Missouri] State Normal School statistics [1912-13]—Continued.

	Kirksville.				Warrensburg.				Cape Girardeau.				Springfield.				Maryville.			
	Fall term.	Winter term.	Spring term.	Summer term.	Fall term.	Winter term.	Spring term.	Summer term.	Fall term.	Winter term.	Spring term.	Summer term.	Fall term.	Winter term.	Spring term.	Summer term.	Fall term.	Winter term.	Spring term.	Summer term.
Average daily attendance . . .	640	675	500	940	690	687	746	1,415	412	426	575	575	433	481	792	1,218	230	275	198	465
Number of daily recitations . .	200	210	200	220	184	177	175	192	114	122	119	118	108	112	156	224	74	80	75	93
Highest number of pupils enrolled in any class . . . . .	50	53	45	58	48	49	49	60	51	51	80	84	48	43	51	64	59	48	39	56
Least number of pupils enrolled in any class . . . . .	6	7	10	6	3	3	3	5	1	2	1	1	4	5	7	10	6	5	5	5
Average number of pupils per class . . . . .	20	23	20	26	18	19	20	31	17	18	18	19	18	19	24	29	18	18	14	22
Average age in years of those attending . . . . .	20	21	22	25	20	21	21	26	19	20	21	23	20	21	24	26	19	20	20	22

This report is remarkable for the number of interesting things that can be learned from it. It gives practically every kind of information that anyone might want concerning the registration of students in any normal school in the State. For example, take the school at Warrensburg. According to the ordinary method of reporting, Warrensburg would be reported as having 1,994 students (different persons enrolled) during 1912-13. But a glance through the columns shows that the average attendance in the fall, winter, and spring terms was only 660, 687, and 746, respectively, jumping up to 1,415 in the summer. Furthermore, by glancing elsewhere in the table we can see that about half of these students are of high-school grade—i. e., in the fall term there were 354 college students, or about the same as the number in the larger Massachusetts normal schools. Moreover, the analysis of this number of college students in the fall term shows that there was only one senior (fourth-year student) and 17 juniors (third-year students). The rest were freshmen and sophomores. Unfortunately, this report does not give the number of graduates in the various courses offered.

**Need average attendance to measure number of students.**—One of the most important and most useful figures given in this Missouri table is the average daily attendance for each term. This figure is also given in the tables in Commissioner Snedden's report for Massachusetts which will be used in a later chapter. It is a figure that all school authorities are now familiar with as the standard basis for reporting attendance in elementary schools. Its utility as a basic measure in such reports, for making various calculations and comparisons, is generally recognized. It would be just as useful for normal-school authorities, and until it comes into common use in normal-school reporting there is little prospect of securing reliable comparative measures of most normal-school activities.

**Students of high-school rank reduce professional efficiency.**—The proportion of high-school and college students in a State normal school is important from the standpoint of serving the State's purposes, for which most normal schools are established, namely, training teachers for the State rather than furnishing a convenient form of general education for certain communities. In other words, if normal schools have to spend a portion of their funds and energy in giving general high-school instruction, to that extent they are handicapped in their efforts to give special professional training for teachers. Hence, if the high schools of a community are capable of providing the necessary high-school instruction, it would be unnatural to find students of high-school grade in the local normal schools. If the high-school situation of a State has been inadequate, but is improving, a parallel elimination of high-school students from the normal schools might be expected.

*Examples of professional improvement through elimination of high-school pupils.*—Good examples of this process of gradually raising the normal-school standards as local high schools improve are found in the reports of a number of States.

*Idaho.*—In Idaho, for example, the improvement in the Albion Normal School is described in the 1912 report of the State superintendent in the following words (p. 29):

The last two years have seen a rapid advancement in educational work of all kinds in southern Idaho. The high schools are growing rapidly in numbers, and those established are strengthening their courses of study. In a few years practically all students will be enabled to secure the greater part of their high-school work in their home schools, with the possible exception of the work in science, advanced manual training, and advanced domestic science, proper laboratory facilities for which are too often wanting in the smaller schools. These increased facilities have already relieved and will relieve the State schools from the necessity of providing for the high-school training of many students who formerly were compelled to secure their high-school training at a State institution, if they secured it at all. The result has been a distinct change in the class of students attending the State Normal School at Albion. At the time of the opening of the school in 1895 there were not a half dozen real high schools in the State, and it is thought there was not a high-school graduate among the students enrolled the first year. The students were compelled to take up even seventh and eighth grade work because they had not had opportunities to get that work. In consequence, the lower classes far outnumbered the higher classes and the heaviest enrollment was in the preparatory department, which was really doing seventh and eighth grade work.

Each year the students have offered better preparation in their work as the schools of the State have offered better facilities. The preparatory department has long since been dropped, and the few students applying for work formerly done in that department are accommodated in the training school. Each year the number of students asking for high-school work has decreased, and each year the number of high-school graduates enrolled has increased. \* \* \* It is the policy of the school to relieve itself of all high-school work as rapidly as the advancement of the school facilities of the State will permit and ultimately to

require high-school graduation for admission to all courses. Every teacher in the common schools should be a high-school graduate, with at least two years of professional training in addition to his high-school work, and that ideal is being rapidly approached, more rapidly than many may realize.

*Louisiana.*—Another good example of this progressive elimination of students of high-school grade from the State normal schools is found in the report of the Louisiana State Normal School for 1914 (p. 11). It reads as follows:

Prior to the opening of the summer quarter in 1911, the requirement for admission to the Normal School was the completion of the seventh grade of the public schools. At that time the course was advanced a half year. In June, 1912, the standard was raised another half year, bringing the requirement for admission up to the completion of the eighth grade or first high-school year. In December, 1913, another advance of a half year was made. Therefore, during the last three years, the normal course of study has been raised by one and one-half years of public-school work. On June 1, 1914, another advancement of a half year will be made. \* \* \*

The effects of this raise in standard are twofold, to wit:

1. Better training of students, arising from a more advanced grade of pupils and an emphasis on more advanced subjects of instruction. The changes have made possible the introduction of higher courses in mathematics, the languages, and all the sciences; and the relegation to the lower terms of many branches of high-school grade which were formerly taught in the most advanced classes.
2. An arrest in the numerical growth of the student body, a condition that was anticipated. The effect in this direction of advancing the standard of curriculum is revealed by the fact that the enrollment in the three lowest terms (those that have been eliminated) was 161 during the spring term of 1911.

*Virginia.*—Similarly in the report of the State superintendent of Virginia for 1911-12 appears the following statement in the report of the president of the normal school at Farmville (p. 442):

The marked improvement in the rural schools has, to a great extent, changed the personnel of the new students who enter each year. Instead of being forced, as in the past, to offer a year of review work in the public-school branches, we are now able to enter practically all our students not lower than the second year of the academic course. The professional courses, open to graduates of approved three and four year high schools, enrolled a larger number than ever before.

*Massachusetts and Rhode Island admit only high-school graduates.*—As examples of States that have completed the process of eliminating high-school students there are the normal schools of Massachusetts and Rhode Island, which have reached the point where they are open only to high-school graduates. In discussing this fact Commissioner Snedden, of Massachusetts, says in his report for 1912-13 (pp. 23-24):

The requirements for admission to the normal school have long constituted a serious problem. When students were received from the elementary schools, as was once the case, the normal-school courses were, as a result, mainly academic, rather than professional, in character. Massachusetts was one of the first States to raise the standards of admission to normal schools by requiring high-school graduation as a condition for entrance.

Graduates of high schools on the approved list of the New England College Entrance Certificate Board, or of high schools approved by the board of education, are now admitted to the normal schools on certification. Applicants not holding certificates are required to take an examination, the questions for which are prepared under the direction of the board. Through this inspection and the accompanying testing of the work of the smaller high schools, the board has been able to raise to some extent the standards of high-school instruction throughout the State.

*High-school graduates must also pass entrance examinations in elementary school subjects in Rhode Island.*—The Rhode Island Normal School report for 1913 gives a general discussion of the raising of standards in order to secure more effective results from available facilities in the training of teachers for the State (p. 14). The report states that as early as 1906 steps were taken to eliminate high-school students in order to make room for distinctively normal students. In 1913 the standards were further raised by establishing for high-school graduates a series of entrance examinations in the elementary-school subjects as described in the following paragraph (p. 25):

By a recent vote of the trustees it has been determined that all students entering the Rhode Island Normal School hereafter shall be given a series of tests in the elementary subjects, and that serious failure in two or more of these subjects will disqualify for admission. All courses at this school will presuppose a good working knowledge of the essentials. Reviews in these elementary subjects should, therefore, be taken in the high schools rather than in the Normal School.

Tests will be given in the following subjects:

In *arithmetic*, for accuracy and facility in the use of numbers, including simple fractions, decimals, and percentage, and for correct solution of the ordinary problems required of children in elementary schools.

In *English*, for command of correct and clear English and for knowledge of the elements of grammar.

In *history*, for the main facts in the history of Rhode Island and of the United States, and a general ability to give clear and logical answers.

In *geography*, for a general understanding of common-school geography, including location, physical features, climate, industries, and commerce.

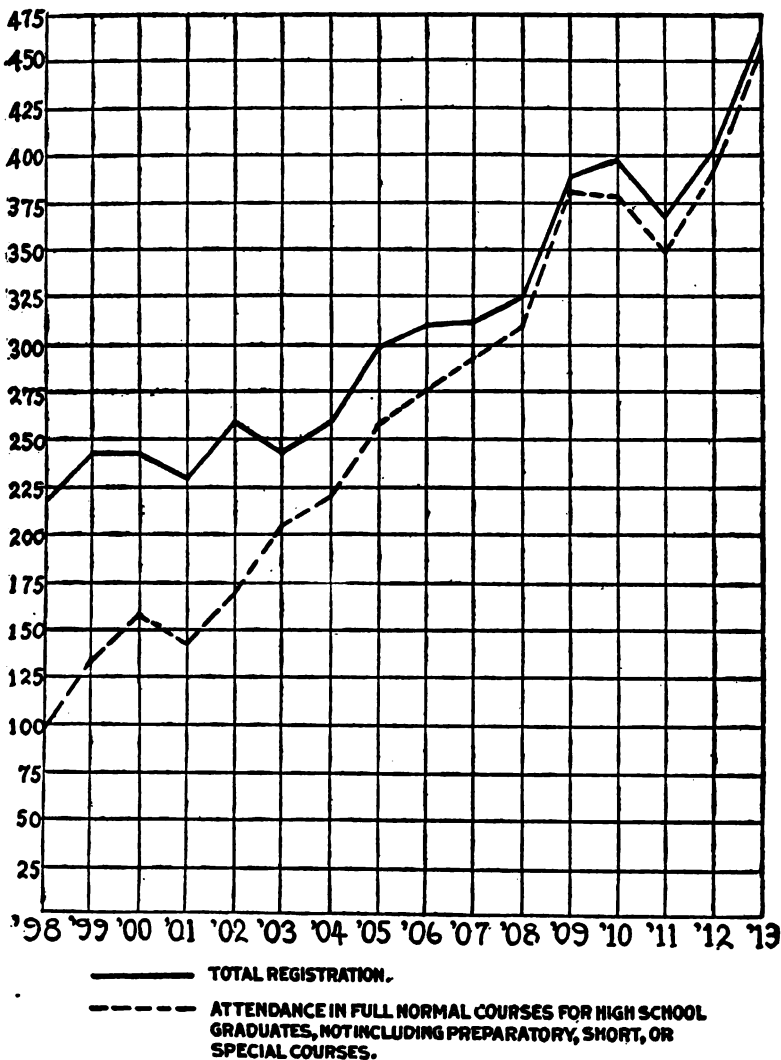
In *drawing*, for nature and object drawing, mechanical drawing, design, and history of art, as indicated in the requirements for this subject.

These examinations will not be severe. They will be designed to test general ability, accuracy of thought, and logical presentation of material, rather than mere memory of fact.

The examinations for admission in September may be taken either in June or in September, on the specified dates. For admission in January they may be taken in June, September, or January. Entrance examinations will not be given at any later dates than those indicated. Students desiring admission must therefore present themselves at one of these regular examinations.

*Chart of advancing standards in Rhode Island.*—The accompanying chart reproduced from page 24 of the 1913 Rhode Island report shows the change in the quality of the students registered in the normal school. It appears that in 1898 less than half of the students (100 from a total of about 220) were taking the full normal course for high-school graduates. In 1913 practically all of the students were enrolled in this course.

*General contrast shown.*—The contrast between the conditions described in Idaho, Louisiana, and Virginia, on the one hand, and Massachusetts and Rhode Island, on the other, is a contrast between relatively undeveloped educational situations and highly developed



urban educational situations. As an intermediate example the normal schools of Illinois may be cited.

*Illinois represents transition in eliminating high-school students.*—In Illinois some of the normal schools enroll a large number of high-school students, while at least one, namely, the De Kalb Normal School, distinctly discourages students of this type from enrolling.

In the 1912 report of the trustees of the De Kalb school we find the situation discussed as follows (p. 5):

The management has not deemed it wise to attach a high-school department to the normal school. What is known as the "Lindly" law requires the State normal schools to furnish secondary instruction to a certain class of students. The number coming to this school is small, as the policy of advising such students to seek high-school instruction near enough to their homes to permit them to be with their parents has been followed. When they have decided to enter the school, however, their legal rights have been secured to them, but the instruction has been so managed as to prevent any additions to the faculty on their account.

On the other hand, a large number of students of high-school grade are registered in the normal school at Charleston, Ill., which serves a part of the State in which high schools are not so well developed as near De Kalb.

Higher professional requirements for certificates increase proportion of students of college rank.—That the laws governing the certifying of teachers in a given State may have a very large influence in determining the number and grade of the students in the normal schools of the State is shown by the example of Ohio, which has already been mentioned in an earlier chapter (p. 31).

*North Dakota.*—Another example occurs in the report of the State superintendent of North Dakota for 1910-12, where the conditions in that State are referred to in the following quotation from the report of the normal school at Mayville (p. 216):

There have as yet been no graduates from either the five-year course for eighth-grade graduates or the two-year course for high-school graduates. The chief reason is that the certification laws of the State do not set a value upon graduation from these advanced courses which is enough higher than that set upon graduation from the four-year and one-year elementary courses to make students desire to take them.

*Minnesota.*—The increase in the proportion of students taking the courses for high-school graduates which results from increasing the requirements for teachers' certificates is well illustrated in the report of the State superintendent of Minnesota for 1911-12. On page 104 the president of the Winona Normal School writes as follows:

The two years here reported measure the immediate effect of the amended statute (1909) limiting the value of elementary diplomas to three years without indorsement. During the last two years preceding the passage of the law the per cent of graduates from the advanced course was 42. For the first full two years since the change the per cent in the advanced course is 72.

Similarly the president of the normal school at Duluth writes as follows (p. 111):

The percentage of high-school graduates enrolled and of students electing the advanced courses is larger than ever before. It seems probable that three-fourths to four-fifths of the students entering this school hereafter will be high-school graduates and that practically all will elect the work of the advanced courses.



Combined influence of developing high schools and advancing requirements for certificates.—It is quite evident from the above discussion that the proportion of high-school students in the State normal schools of a community depends to a large extent on the development of high schools in the State and the scheme of certifying teachers. As long as high schools are scarce, pupils who desire work beyond the elementary school will usually be accommodated in the normal schools. As high schools develop, the proportion of such students in the normal schools *may* decrease. Unless the State places a premium, however, on high-school graduates taking advanced normal courses, by granting them superior teachers' certificates, the number of such students in normal schools may not increase rapidly. Where such a situation exists (i. e., no certifying premium) normal-school presidents may continue to accept many high-school students even when the high schools of the community are adequate to take care of them. As soon, however, as a good certification law is passed in such a State, so as to give adequate stimulus to high-school graduates to take a two-year normal course, the normal schools will be so crowded with these advanced students that the normal schools will probably have to get rid of the high-school students in order to accommodate the candidates for graduation in the advanced courses.

## Chapter VII.

### FACULTIES OF STATE NORMAL SCHOOLS.

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Supplements statistical discussions in Chapter II.—A statistical discussion of various characteristics of normal-school faculties is presented in Chapter II. The data given there show the fundamental general facts concerning the size, academic training, duties, and salaries of normal school faculties in the North Central States and provide comparisons with similar facts concerning teachers in colleges and universities in the same territory.

The present chapter will provide a further discussion of the same type of facts. Instead of statistical tables for a given part of the country, however, particular examples will be cited as the basis of interpretative discussion of some of the issues involved.

**Need competent teachers with cooperative interest in public-school work.**—Among the most important characteristics of a normal-school faculty from the standpoint of serving the purposes of the State in training teachers are (a) the degree of *cooperative interest* manifested by the faculty in the training of prospective teachers for the real, concrete, detailed tasks which they will undertake when they begin to teach, and (b) the competence of the teachers to give such training. Normal-school teachers should be more interested in the regular daily work of public schools than in anything else, and they should be willing and able to cooperate heartily in giving students training for such work. The most important measure of the efficiency of a faculty that is composed of competent individuals is *the extent to which this cooperative interest dominates the work of the normal school*. This could be determined objectively by a study of the productive activities of the faculty and by an examination of the efficiency of students after they enter the teaching profession. A competent observer could find out a great deal through personal observation. Neither the competence of the individuals composing a faculty nor its cooperative interest in normal-school tasks can be fairly judged, as a rule, from printed catalogues or reports or from answers to questionnaires.

**Certain objective characteristics easily ascertained from the printed announcements.**—There are, however, a number of rather obvious objective facts about the faculties of normal schools which

can be easily determined from printed reports and questionnaires. These are of sufficient interest to persons engaged in normal-school work to justify their compilation. These facts include the number of instructors employed in typical schools and their training and salaries. For the present discussion data have been chosen from a few institutions which are typical of different sections of the country and for which the desired information could be secured from catalogues or other printed material.

**Number of teachers.** *Large variation in normal schools of Massachusetts.*—It is interesting to note that very great variation may exist in the numbers of instructors employed within the normal schools of a single State. Massachusetts is an example. According to Commissioner Snedden's report for 1912-13, the 10 Massachusetts normal schools employ the numbers of instructors indicated in the following table:

*Instructors employed in the Massachusetts normal schools, 1912-13.*

Location.	Number of teachers in—		Total.
	Normal school.	Model and practice schools.	
Hyannis.....	9	6	15
Westfield.....	10	14	24
Lowell.....	11	25	36
North Adams.....	13	20	33
Fitchburg.....	14	17	31
Worcester.....	15	14	29
Salem.....	19	9	28
Boston (Normal Art).....	20	6	26
Bridgewater.....	20	13	33
Framingham....	21	11	32

Thus in one State considerable variation is found, namely, from 9 normal-school teachers at Hyannis for an enrollment of 67 students to 21 normal-school teachers at Framingham for 315 students.

*Variation in Massachusetts approximates variation in country at large.*—There are in the United States only a few State normal schools with staffs smaller than that at Hyannis, and there are not many (apart from the large city training schools) that employ more than 21 teachers for work of strictly collegiate grade with 11 additional critic or model teachers, as is done at Framingham.

*Large faculty at Los Angeles (Cal.) normal school.*—One of the largest faculties in an institution which enrolls only students of collegiate grade is the one in the State normal school at Los Angeles, Cal. According to the catalogue for 1914, this school seems to have approximately 50 normal-school instructors (not counting student assistants) and 14 teachers in the training school. Three supervisors

of practice teaching are included in the 50. This staff instructed 1,405 regular college students during 1913-14, over 500 of whom graduated during the year from collegiate courses of at least two years in length.

*Probably largest faculty is at Ypsilanti (Mich.) normal school.*—Perhaps the largest State normal school faculty is that of the institution at Ypsilanti, Mich. This school enrolls about 1,500 students during the regular year, most of whom are of collegiate rank. To instruct these students the institution employs about 80 teachers in addition to some 15 training teachers in the practice or model schools.

**Minimum size which may assure adequate specialization in instruction.**—The most important aspects of normal-school work which are influenced by the number of normal-school teachers employed in a single school are (a) the cost of maintaining the normal school and (b) the efficiency of the instruction. In order to have efficient instruction, there should be a certain degree of specialization by the teachers. For example, the most efficient instruction can not be secured where one teacher teaches such unrelated subjects as psychology, English, and penmanship; another, natural science, English, and sewing; and another, natural science, agriculture, and civics, as is the case in one small normal school. Even more varied assignments are found in other schools.

*Description of theoretical minimum faculty.*—In order to secure the degree of specialization which is desirable, how many instructors must be employed for the strictly normal-school courses and the practice teaching in an institution maintaining only two-year courses for high-school graduates? The following list is suggested as a minimum for a small school:

- A. One president, who teaches education part time.
- B. One head of the training school and director of practice teaching, who teaches education part time.
- C. One teacher of history and of the history of education.
- D. One teacher of geography and nature study.
- E. One teacher of English.
- F. One teacher of mathematics.
- G. Part time of one teacher in each of the following subjects, who also teaches his or her subject in the model and practice school:
  - Art.
  - Music.
  - Manual training.
  - Home economics.
  - Physical education.
- H. One critic teacher and managing principal of the practice school.
- I. Four additional critic teachers who have charge of groups of children in the practice school and of groups of practice teachers.

This makes a total faculty of 16, divided as follows:

	Teachers.
Full time to normal school (including the president and the director of the training school)-----	6
Part time to normal school and part to practice school-----	5
Full time in practice school-----	5
Total-----	16

*This faculty could teach 150 to 175 students.*—Such a faculty could probably teach efficiently 150 to 175 students in a standard, general, two-year course for high-school graduates and 200 children in a practice school, and not be at all overworked. These figures are obtained by estimating that each full-time college teacher should teach approximately as many periods a week as a student recites and that students should be organized into reciting sections of 25 each. On this basis the faculty could take care of approximately as many groups of 25 as there are full-time college teachers, or the equivalent thereof, on the normal-school faculty.

*Fundamental points in this estimate.*—This tabulation seems so simple and self-evident that certain fundamental points in it may be overlooked. Among these are the following:

1. *A few well-organized courses in education.*—There is relatively small provision for an instructional staff in education (which includes psychology). Instead of many courses in these subjects, there should be offered a few well-organized ones which contain the fundamentals of educational doctrine presented with clear relation to practical teaching situations. Much of the more abstract theoretical material can be omitted. Especially should the fact be emphasized that the traditional devotion to history of education and an abstract course in psychology is open to the gravest objections.

2. *Education taught by practical administrative experts.*—The instruction in education is in charge of the two principal administrative officers, the president of the normal school and the director of the training school. This is also important. Both of these men should be well-informed, general educational experts as well as expert administrators. They should be qualified to select and incorporate in the work in education those discussions that have specific and evident value in improving school practice, and to eliminate all other material.

3. *Teachers of special subjects serve in both normal and training school.*—The teachers of the so-called special subjects (art, music, manual training, home economics, and physical education) serve in both the normal school and the practice school. In almost any small normal school, one teacher to teach each of these subjects in both schools ought to be sufficient. Each teacher, as a rule, should be re-

quired to do this instead of using a part of his or her time in the very expensive instruction of small groups of normal-school students in special curricula. This topic will be discussed more fully in Chapter XIII.

4. *Liberal supply of critic teachers is necessary.*—The provision for the supervision of practice teaching seems liberal, but it is necessary. It is based on the theory that each critic teacher will have charge of 40 children, usually divided into not more than two groups, and that not more than four hours of practice teaching a day will be permitted with each group. By this arrangement each group of children will afford 20 hours of practice teaching a week, or 200 hours of such teaching in a term of 10 weeks. If one group affords 200 hours, the two groups will afford 400 hours per term. If each practice teacher is required to do 100 hours of practice teaching for graduation, the 400 hours afforded by two groups in a term will permit four practice teachers to complete their requirement for graduation in one term. Hence each critic teacher will be able to offer in one term the *complete amount* of practice teaching required by four students. In three terms (or the full regular year) on this basis she could provide the amount of practice required for 12 students. Hence each critic teacher can train 12 practice teachers a year.

Hence the five critic teachers provided in the faculty outlined above could take care of 60 practice teachers annually, which is the probable number of graduates in a two-year course for high-school graduates which enrolls from 150 to 175 students. A proportionate increase in critic teachers is necessary as the number of students increases.

*Cost would necessitate reduction of above faculty in a very small school.*—The above discussion of the minimum faculty for a small normal school has been organized primarily from the standpoint of efficiency in instruction. The element of cost in instruction is a more complicated item to consider. Obviously, if the normal school were so small that it could not employ each of the above college instructors approximately 20 hours a week in teaching students in groups of 25 each, the number of instructors should be reduced, with a corresponding reduction in the degree of specialization permitted. This would probably decrease the efficiency of the instruction somewhat, but such a decrease must be contemplated where normal schools are so established that they can not secure the best number of students for both economical and effective instruction.

*Training of normal-school teachers. Public-school experience, academic training, professional training.*—The second aspect of normal-school faculties to be considered is the nature of the training of the individual members. Three obvious items enter into this consideration of training; namely, (1) experience in public-school work,

(2) academic work in their special departments, (3) professional training in their special departments.

*Normal-school instructor's work centers in course of study of local public schools. Large possibilities.*—It is highly important that the detailed concrete nature of the task of a normal-school departmental instructor be kept constantly in mind. The beginning and end of his endeavor should be the course of study in his particular subject in the community (usually a State or district) where the normal school is located. Specific growth in power to teach this course of study should be secured in his normal-school students. All materials and methods which are used should be definitely selected because they introduce students to practical teaching processes that they can carry out with classes of the size and type that they will have in the public schools. While this may seem to offer a narrow and unattractive outlook to the normal-school instructor, as a matter of fact it opens up such large possibilities in the way of preparing textbooks and materials for use in the grades that few instructors measure up to its possibilities. Many who hold normal-school positions consider themselves too big for this type of detailed work, and are inefficient as a consequence.

*Best combination of characteristics for successful instructor.*—There can be very little doubt that intimate contact with the problems of public-school teaching is the best possible training for the normal-school teacher. In general, such contact is more readily and satisfactorily obtained through teaching experience in the public schools. In some cases careful scientific observation of school practices may serve to give the requisite training, but in ordinary cases such observation is not adequate in duration or intimacy to give the preparation necessary.

Parallel with practical experience and no less important is thorough training in subject matter and in the fundamental principle of the science of education. There can be no doubt that the tests of intellectual competency have sometimes been neglected in the selection of normal-school teachers. It would be a mistake to omit contact with schools; it is equally a mistake at this time, when education is being studied from the point of view of science, to fall short in rigid scientific standards.

*Salaries. Relative salaries most important.*—As a final aspect of the faculties of normal schools, we shall consider briefly the matter of salaries. Here again the *gross* salaries paid are not so important as certain relationships between the salaries of different officers within the same normal school and certain matters of per capita cost, which will be taken up in the next chapter. However, in order to make concrete some of the relationships which we desire to discuss, we shall present certain data concerning the actual salaries paid.

*Massachusetts salaries typical of well-developed system.*—For the Massachusetts normal schools the situation with regard to salaries of instructors is discussed by Commissioner Snedden in his report for 1912-13 in the following paragraph (p. 35):

At the outset of their work in the normal schools their salaries have not been large—about \$1,000 per year for women and from \$1,500 to \$1,800 for men. The maximum salaries available—usually after many years of service—are \$1,200 and occasionally \$1,500 for women, and \$2,000 to \$2,500 for men.

The above salaries are probably for the regular academic year, not including summer instruction.

*Idaho salaries typical of small young school.*—A typical schedule for a small school is that for the State normal school at Albion, Idaho. It occurs in the report of the school for 1911-12 and does not include summer instruction. It is as follows (p. 30):

INSTRUCTORS' PAY ROLL, ALBION (IDAHO) STATE NORMAL SCHOOL, 1912-13.

President .....	\$3, 375
Dean, science.....	2, 000
Supervisor training, education .....	2, 000
German, Latin.....	1, 500
English .....	1, 200
Mathematics, dean of men.....	1, 200
History .....	1, 315
Agriculture, director of athletics.....	1, 200
Manual training.....	1, 200
English, dean of women.....	1, 200
Drawing, librarian.....	750
Music .....	1, 100
Domestic science.....	1, 200
Grammar-grade critic.....	1, 000
Intermediate-grade critic.....	1, 000
Second-primary critic.....	1, 000
First-primary critic.....	1, 200
Total.....	23, 440

It will be noticed that this faculty approximates roughly the theoretical minimum small faculty outlined earlier in the chapter.

*Michigan normal-school salaries average high.*—As a third example the salary schedule of the State normal school at Mount Pleasant, Mich., is given. This seems to include summer instruction in the annual salaries. It is fairly typical of the salaries in the Michigan State normal schools and is printed along with those of the other schools in the 1912 report of the State board of education (p. 59).



*Salary schedule, Central Michigan State Normal School.*

Members of faculty.	Schedule of salaries, 1912-13.	Proposed salaries for 1913-14. Duplicated 1914-15.
<b>President</b> .....	\$3,500	\$3,500
<b>Heads of departments:</b>		
Literature and English.....	2,400	2,500
Mathematics.....	2,300	2,300
Geography.....	2,400	2,500
History and civics.....	2,400	2,500
Superintendent of training school.....	2,300	2,500
Psychology and pedagogy.....	2,400	2,500
Music.....	2,200	2,200
Physiology and physical training.....	2,200	2,400
Reading and public speaking.....	2,200	2,400
Physics and chemistry.....	2,200	2,400
Agricultural education (new).....		2,500
Agriculture and nature study.....	1,900	2,000
Latin and German.....	1,800	1,900
Drawing.....	1,800	1,900
Biology.....	1,700	1,800
Kindergarten.....	1,200	1,200
Women's dean.....	1,200	1,500
Rural schools (new).....		2,000
<b>Total</b> .....	<b>36,100</b>	<b>42,600</b>
<b>Instructors:</b>		
Psychology and education.....	1,400	1,500
Physical education.....	1,400	1,500
Physical training (women).....	1,200	1,200
Drawing.....	1,200	1,200
Mathematics.....	1,200	1,200
History and civics.....	1,150	1,200
Latin and German.....	1,150	1,200
English.....	1,100	1,200
Domestic science and art.....	1,100	1,200
Manual training.....	1,200	1,500
English grammar and rhetoric.....	1,200	1,200
Music.....	1,200	1,200
Supervisor of drawing, training school.....	1,000	1,100
Harmony and accompanist.....	500	500
<b>Total</b> .....	<b>16,000</b>	<b>16,900</b>
<b>Critic teachers:</b>		
First grade.....	1,200	1,200
Second grade.....	1,050	1,100
Third grade.....	1,200	1,200
Fourth grade.....	1,050	1,100
Fifth grade.....	1,200	1,200
Sixth grade.....	1,200	1,200
Seventh grade.....	1,050	1,100
Eighth grade.....	1,200	1,200
<b>Total</b> .....	<b>9,150</b>	<b>9,300</b>

*Large salaries for principal officers at De Kalb, Ill.*—A schedule that resembles the Michigan schedules in general range of salaries is that of the State normal school at De Kalb, Ill., except in the following special items, according to the report of the board of trustees for 1911-12 (p. 21) and a letter from the president: The president received an annual salary of \$5,000; the supervisor of training, \$4,500; and the professor of pedagogy, \$3,450. One primary critic received a salary of \$2,000, but the other critics received about \$1,000 each.

An efficient president should have proportionately a very large salary.—Perhaps the most important relationship within the salary budget of a normal school that is worth considering is the rela-

tive amount of the president's salary as compared with those of the other officers. As indicated in our discussion of the control of normal schools, the president is usually the great dominant factor in determining the character of any school. In order to be a striking success, he must be a sort of universal genius as far as the work of elementary schools and normal schools is concerned. He ought to know all about the needs of the elementary schools of the State (as well as the high schools in a few cases), and he ought to be very well-informed concerning just what should be done in each department of the normal school. Furthermore, he ought to be able to select instructors who are competent to do their special tasks as described on page 42 and to see that they succeed. With the exception of the director of the training department, it would appear that the position of any other member of the faculty is relatively insignificant as compared with that of the president. In fact, in many schools, the vacating of the instructorships in some departments for several years would have little effect on the efficiency of the graduates of the school. In view of these facts, if the president of a normal school is the type of efficient person postulated above, he deserves a relatively large salary as compared with members of the faculty. As an *educational* officer he is a much more important leader than the president of a college or small university, although as a *financial* officer he may not be so important.

Good critic teachers highly important; should command good salaries.—The other relationship between salaries within a given normal school which we shall consider is between the salaries of the critic teachers and the salaries of the departmental instructors or professors. The point of departure for our consideration here is the fact that every normal-school graduate who has had the good fortune to teach for 100 hours under the careful supervision of a superior critic teacher has probably profited more in terms of efficiency from this experience than from any 1,000 hours of departmental instruction in the normal school. This being the case, it is highly important that sufficient money be set aside in the budget for salaries of critic teachers to secure such superior supervision for all prospective graduates.

*Good critic should receive superior grade-teacher's salary, plus training salary.*—Just how this should be paid to individuals involves a variety of considerations which we can not carry through to their logical conclusion here. For example, to begin with, a superior critic who is teaching 40 children would probably receive \$800 to \$1,000 in a good city system simply for teaching the children. Hence, this item ought to be assumed as a part of fundamental training-school maintenance to begin with. The question then arises, How much should

she be paid in addition as a factor in the training of normal-school graduates? Since she can train only about 12 graduates a year, this becomes a question of how much the school is willing to pay for a service which, as postulated above, is more valuable than any other service in the school, but is rendered to only a few students. We shall not attempt to give a precise answer to the question which we have raised, but shall say in general that some normal schools would greatly increase their concrete effectiveness by subtracting money from the salaries of departmental instructors and using it to increase the effectiveness of the supervision of practice teaching.

## Chapter VIII.

### NORMAL-SCHOOL COSTS.

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Reliable per capita costs commonly used now in public schools are needed in normal schools.—During the last 15 years the development of a standard technique for measuring per capita costs in elementary schools and high schools has made available each year a body of reliable, precise information concerning expenditures in public schools. School officials find this information of very great value in studying problems of maintenance and expenditure. It is perfectly possible and highly desirable to develop the same type of measurements and technique in State normal schools. Normal-school presidents frequently attempt to make such calculations by using data published in the tables in the reports of the United States Commissioner of Education. The calculations and the comparisons based on these are usually not valid, however, because the original data do not permit of the calculation of reliable comparative conclusions of the type indicated.

Comparative per capita data of 10 Massachusetts schools furnish excellent examples for reliable comparisons.—An excellent beginning in the calculation of comparative unit costs in State normal-school maintenance has been made by Commissioner Snedden, of Massachusetts, with the annual expenditures of the 10 State normal schools of that State. The carrying out of the scheme involves (1) the development of uniform methods of *accounting* which analyze expenditures into fundamental items which are worth measuring, and (2) the development of uniform, standard methods of measuring *attendance* in terms of average membership for the year. Both of these items are clearly evident in the Massachusetts tables which are printed in the annual report of the State board of education for 1912-13 (pp. 19 and 192-194) and are reproduced below:

*Massachusetts normal schools—Teachers, admissions, attendance, etc., for the school year ending June, 1913.*

Location.	Teachers in—				Total enrollment of students in normal schools, September, 1912, to June, 1913.		Average number of pupils in model and practice schools.	New students admitted to normal schools in September, 1913.	Graduates from normal schools in June, 1913.	Graduates from the beginning.
	Normal schools.		Model and practice schools.							
	Men.	Women.	Men.	Women.						
Bridgewater.....	9	11	1	12	32	342	375	157	128	4,173
Fitchburg.....	5	9	5	12	43	225	604	136	135	1,826
Franklinham.....	7	14	.....	11	.....	235	253	135	103	3,244
Hyannis.....	3	6	2	.....	13	154	211	56	81	845
Lowell.....	6	7	1	24	.....	151	1,044	81	70	855
North Adams.....	4	9	.....	20	.....	132	683	70	55	696
Salem.....	8	11	2	7	26	315	575	176	105	3,423
Westfield.....	6	4	1	13	.....	209	515	102	97	2,488
Worcester.....	6	9	.....	14	.....	212	485	90	66	1,493
Boston (Normal Art).....	14	6	5	1	53	267	.....	* 112	65	1,726
Total .....	* 66	86	17	118	176	2,253	4,745	1,115	855	19,269

\* Not including 200 students in the summer session.  
 \* Not including 57 students in correspondence course.

\* Not including 96 evening-school students.  
 \* Figure in printed report changed.

*Expenditures of Massachusetts State normal schools in 1912-13 for salaries, wages, and labor.*

Location.	Cubic contents of buildings.	Average membership, 1912-13.	Salaries, wages, and labor.							
			Normal school.	Per capita.	Training school.	Per capita.	General administration.	Per capita.	Total.	Per capita.
Bridgewater.....	1,776,381	360	\$30,057.21	\$83.49	\$6,997.66	\$19.44	\$10,280.08	\$28.42	\$47,284.95	\$131.34
Fitchburg.....	1,349,631	269	19,976.00	74.25	21,706.94	180.69	7,063.90	26.26	48,744.84	131.21
Franklinham.....	738,380	306	25,551.65	83.50	6,820.78	22.29	6,967.67	22.74	39,330.10	128.53
Hyannis.....	447,044	* 100	13,659.18	136.59	2,517.52	25.18	3,117.78	31.17	19,768.93	192.94
Lowell.....	625,041	148	17,474.16	118.07	4,832.50	32.65	4,219.23	28.51	24,638.44	176.23
North Adams.....	967,672	127	15,519.38	122.20	6,862.90	64.75	5,887.45	46.36	28,869.73	223.30
Salem.....	979,716	321	28,996.37	84.10	6,008.68	17.47	4,772.48	14.87	37,375.53	116.43
Westfield.....	1,077,881	200	14,344.64	71.72	6,715.86	33.60	5,008.73	25.04	26,073.25	120.37
Worcester.....	510,452	200	19,210.31	96.05	2,533.38	14.17	3,782.51	18.91	25,928.18	129.13
Boston (Normal Art).....	507,519	* 337	\$2,351.65	\$6.00	2,221.67	6.69	5,465.29	16.28	40,068.61	118.87
Total.....	8,850,157	2,368	215,139.55	.....	67,208.89	.....	\$6,625.12	.....	\$38,873.56	.....

\* Partially offset by amount received from city of Fitchburg.

\* Includes 64 students at regular session of normal school (189 days) and 285 students at summer session (5 weeks). Five weeks of summer session equal one-eighth of regular session; one-eighth of 285 = 35.6 + 64 = 100 average membership.

\* Includes 316 students at regular session (1,190 hours) and 96 students at evening session (80 hours). Eighty hours evening session equal one-fiftieth regular session; one-fiftieth of 316 = 21 + 316 = 337 average membership.

*Expenditures of Massachusetts State normal schools in 1912-13 for furnishings, heat, light, power, repairs, improvements, and grounds.*<sup>1</sup>

Location.	Furnishings.			Heat, light, and power.			Repairs and improvements.			Grounds.		
	Expended.	Per capita.	Per 1,000 cubic feet.	Expended.	Per capita.	Per 1,000 cubic feet.	Expended.	Per capita.	Per 1,000 cubic feet.	Expended.	Per capita.	Per 1,000 cubic feet.
Bridgewater.....	\$382.60	\$2.45	\$0.50	\$4,345.70	\$12.07	\$2.45	\$6,368.01	\$17.69	\$3.59	\$276.08	\$0.77	\$0.30
Fitchburg.....	331.29	1.31	.40	4,611.10	17.99	3.57	4,868.22	18.42	2.67	841.57	3.15	1.30
Frammingham.....	538.68	0.99	.26	1,622.32	16.11	0.81	5,208.06	19.14	2.67	468.67	1.60	1.00
Lowell.....	923.98	2.29	.98	1,894.90	18.54	4.15	3,246.09	32.45	7.26	398.85	2.09	.72
North Adams.....	774.19	0.88	.77	4,504.70	35.06	4.51	3,910.88	29.77	2.45	429.67	3.98	2.70
Salem.....	1,521.42	4.74	1.15	4,683.70	8.29	1.72	3,165.81	4.74	2.16	429.39	3.98	1.41
Westfield.....	727.42	3.69	.68	7,037.46	30.65	7.57	4,002.80	20.01	2.16	123.53	.61	.88
Worcester.....	983.65	4.77	1.98	7,039.87	8.20	3.31	5,942.10	29.21	1.41	159.00	.80	.74
Boston (Normal Art).....	1,454.56	4.52	2.88	1,682.27	4.99	3.31	1,808.51	5.33	2.55	.....	.....	.....
Total.....	8,344.94	.....	.....	34,877.83	.....	.....	37,863.85	.....	.....	2,901.29	.....	.....

<sup>1</sup> For both normal schools and boarding halls.

\* No boarding hall connected with these schools.

*Expenditures of Massachusetts State normal schools in 1912-13 for supplies and miscellaneous items—Receipts.*

Location.	Supplies, normal school.			Supplies, training school.			Supplies, office and other.			Miscellaneous.			Total.			Receipts.
	Expended.	Per capita.	Per 1,000 cubic feet.	Expended.	Per capita.	Per 1,000 cubic feet.	Expended.	Per capita.	Per 1,000 cubic feet.	Expended.	Per capita.	Per 1,000 cubic feet.	Expended.	Per capita.	Per 1,000 cubic feet.	
Bridgewater.....	\$3,062.20	\$8.51	.....	\$990.39	\$1.92	.....	\$1,103.06	\$3.06	.....	\$948.79	\$2.36	.....	\$64,861.78	\$180.17	.....	\$1,617.10
Fitchburg.....	2,038.99	7.58	.....	1,212.82	18.15	.....	589.03	2.19	.....	1,529.71	5.69	.....	66,061.33	245.58	.....	24,613.89
Frammingham.....	3,004.32	9.82	.....	107.00	.35	.....	637.94	2.08	.....	989.86	3.23	.....	55,893.35	192.36	.....	1,004.98
Lowell.....	964.13	9.54	.....	42.50	.43	.....	622.08	6.22	.....	618.72	6.19	.....	27,628.58	276.28	.....	766.11
North Adams.....	2,194.45	14.83	.....	483.93	3.27	.....	461.58	3.05	.....	1,149.92	7.77	.....	32,941.16	324.19	.....	2,349.88
Salem.....	1,627.81	12.82	.....	1,113.39	8.77	.....	467.84	3.68	.....	804.03	6.33	.....	41,171.83	163.00	.....	844.83
Westfield.....	3,467.19	10.80	.....	516.71	1.61	.....	788.66	2.46	.....	1,445.84	4.25	.....	43,496.56	217.48	.....	664.94
Worcester.....	2,678.62	13.39	.....	204.13	1.02	.....	801.53	4.46	.....	849.29	4.25	.....	43,496.56	201.62	.....	208.09
Boston (Normal Art).....	3,030.23	15.16	.....	1.71	.01	.....	1,500.59	7.50	.....	1,371.94	6.86	.....	40,324.77	142.14	.....	3,701.26
Total.....	1,388.01	4.12	.....	.....	.....	.....	819.56	2.43	.....	696.40	2.06	.....	47,801.92	.....	.....	35,865.93
Total.....	23,445.65	.....	.....	6,352.58	.....	.....	7,871.87	.....	.....	10,303.60	.....	.....	469,365.07	.....	.....	.....

<sup>1</sup> Partially offset by amount received from city of Fitchburg.

\* Includes \$2,000 expended for correspondence course.

*Other normal schools can parallel Massachusetts data.*—It is an easy matter for any normal-school official who has some understanding of statistical methods to proceed to secure parallel data for his own school and to work out similar per capita costs. The types of bookkeeping sheets to be used could be devised by reference to the headings of the columns in the Massachusetts tables. Moreover, in view of the general importance of the issues involved, Commissioner Snedden would probably be glad to send sample accounting pages to any normal-school president who desires to develop a parallel accounting system for his own school. In a letter to the authors, Commissioner Snedden states that it is the intention of the department to improve on certain details of the method, and not to publish the data every year.

*Special notes on certain items in the tables.*—Probably the only items in these tables that need any special explanation are the following: On page 76, under salaries, wages, and labor, the item "general administration" should be explained so as to indicate whether it includes the principal's salary and the salaries of clerks, janitors, librarians, etc. The items "normal school" and "training school" under this general heading may include only salaries paid for instruction. Another item that needs explanation is the item "receipts," in the last column on page 77. This seems to include all receipts by the normal school of funds other than those furnished by the State, excepting fees for room and board.

*For comparative purposes other schools should reduce costs to 36 or 40 weeks basis.*—In comparing the per capita costs in his institution with those in the above tables, any normal-school official must keep in mind that the above per capita costs represent the costs for *one student of collegiate grade during one regular academic year of approximately 36 or 40 weeks*, not including the summer term. In normal schools where a large number of the students are of high-school rank, this fact should be taken into consideration. In schools where summer terms are maintained and the summer budget is a part of the regular annual budget, these facts must be allowed for.

## Chapter IX.

### GENERAL COURSES OF STUDY FOR HIGH-SCHOOL GRADUATES.

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**Differentiated general courses for high-school graduates.**—The discussion of the courses of study of normal schools is complicated by the fact that some institutions offer so many different courses of study; for example, one excellent institution outlines 13 in its catalogue. This is probably necessary in schools where students are received at any stage of schooling from the first year of high school to the second year of college, and where several courses of study are offered for teachers of special subjects. In normal schools which maintain only two-year courses for high-school graduates there are two standard general courses which most of the students follow, namely, the course for kindergarten-primary teachers and the course for intermediate and grammar-grade teachers. Only these two courses will be discussed in this chapter. Courses for prospective teachers of special subjects will be discussed in Chapter XIII.

*Recent differentiation of courses for teachers of lower grades and upper grades.*—The differentiation of the two-year general courses for high-school graduates into those for teachers of the lower grades and those for teachers of the higher grades is a relatively recent innovation. For a long time in many schools one standard general course was taken by all prospective elementary teachers, regardless of whether they expected to teach in the lower grades or the upper grades. This single course was made up of some work suited to primary teachers, some to upper-grade teachers and some of a general character often not suited to either. For example, the courses in the teaching of reading and handwork usually emphasized the work of the primary grades, the courses in geography and history were especially related to upper-grade work, and the psychology and history of education were not related to either.

**More specific aims and training now being emphasized.**—The differentiation of the two general courses is part of a movement to provide for more definite and specific purposes in normal-school training. The problem of training a teacher for the first three grades of the elementary school becomes a perfectly definite one when carefully studied and analyzed. Two years is a short time in which to prepare a high-school graduate adequately for such work; hence



there should be definite assurance that everything included in the course has *specific* value in improving the practice of primary teachers, and no important aspect of the work of such teachers should be omitted from the training. The same things are true of the course for upper-grade teachers, but here it is even more difficult to give adequate training in two years; hence several of the more highly developed normal-school systems are gradually making a transition to three-year courses for high-school graduates who expect to teach in the upper grades.

*Specific training emphasized by Morrison.*—The importance of *specific* purposes is often overlooked by normal-school authorities, more especially by the departmental instructors; hence it will be given special emphasis here by means of quotations from the discussions of State Supt. Morrison, of New Hampshire, and Commissioner Snedden, of Massachusetts. In an earlier chapter on normal-school control the part played by Supt. Morrison in modifying the work of the New Hampshire normal schools was described (see p. 43). In his report for 1911-12, in discussing the modifications introduced in the course of study, he says (p. 152):

In the last biennial report of this office the theory under which the training process was [formerly] administered was explained. In brief, individual freedom and general development were emphasized, and specific training in methods and school management minimized. This conception of the training process was common to both schools, and a reversal of the process has taken place in the two schools simultaneously. The theory had come to break down in practice. Graduates were found to have acquired considerable general ability as teachers, and after a time, under the oversight and instruction of a superintendent, acquired facility in schoolroom routine. They did not learn how to teach and how to handle a school.

A program has been prescribed by the trustees calculated to give specific and definite training for teaching in the elementary schools of this State. The State course of study is made the basis of instruction in methods, and the same is made the course of study in the model and practice schools. Thus, the students under training are made familiar from the outset with the line of work which they must carry out as teachers. It is further provided that each student before graduation must "make good" by teaching one-half of each school day for 18 weeks in the practice schools, being responsible for the conduct of classrooms for that time.

The principals have faithfully carried out this program.

It is too early to report definitely upon results, since at the time of writing the graduates have taught for less than six weeks. We are, however, informed by the superintendent of schools in Manchester that the seven graduates of the Plymouth class of 1912, now teaching in that city, have shown marked and unusual capacity in the schoolroom. There is nothing peculiar in this case, and no doubt substantially the same report would come from the majority of the graduates of 1912 at both Plymouth and Keene.

It is obvious from this report that vague general purposes and training have been replaced by specific purposes and training in the New Hampshire normal schools.

*Need of more specific aims emphasized by Snedden.*—One of the best discussions of this general policy and of the general principles that should govern the organization of normal-school courses of study and instruction is found in Commissioner Snedden's elaborate report for 1912-13 on the Massachusetts normal schools, which has been quoted many times in this bulletin. In his conferences with the principals and faculty representatives of the 10 normal schools, the following propositions were made the basis of the discussion so far as it affected the course of study:

1. The purpose of each type of instruction and training offered in the normal schools shall be more effectively defined.
2. Normal-school training should be effectively correlated with the educational practices in town and city schools.
3. Certain of the professional subjects, especially psychology and the history of education, should be more effectively taught, if they are to justify their presence in the curriculum.
4. There is need of a clearer understanding of the needs, limitations, and possibilities of typical normal-school students.
5. The professional training given by the normal schools should be differentiated according to the probable field of service in elementary schools to be entered by the prospective teacher.

*Trenton principal emphasizes clear defining of normal-school methods.*—This necessity of a more careful determination of specific values in normal-school courses of study was frequently referred to in letters to the authors from normal-school authorities. Thus, the principal of the State Normal School at Trenton, N. J., wrote as follows:

I can see how a request sent to normal schools asking them to define the points in which their work differed from the usual academic work—in other words, asking them to define their methods—would be of very great interest. I think the general mind is muddled concerning what is peculiarly normal.

*Oshkosh principal emphasizes differentiated departmental courses.*—Along the line of more careful determination of the specific values of normal-school courses and differentiation accordingly, the principal of the State Normal School at Oshkosh, Wis., wrote as follows:

I consider it quite essential to find out, first, the extent to which the course of study is adapted to the prospective needs of different groups of teachers; that is, the amount of real differentiation there is in it—does everybody have the same geography or is the geography differentiated?—because the extent of this differentiation is a measure of the extent to which serviceable subject matter and most highly serviceable methods are taught.

*History of development of differentiated courses in Wisconsin.*—The historical development of the point of view which emphasizes specific professional training in the normal-school courses of study, instead of general high-school or collegiate training, is summarized

for the State of Wisconsin in the following quotation from the bulletin published by the board of regents of the normal schools of that State (March, 1915). This number of the bulletin is devoted to the organization of differentiated courses in the normal schools. The historical change from short review courses to general cultural courses, and later to the vocational-professional courses, is described by Secretary Kittle in the following words:

#### THREE TYPES OF NORMAL SCHOOLS.

1. The early normal schools, from 1866 to 1895, offered what were called reviews or general reviews. They gave 5-week courses, 6-week courses, and 10-week courses in the common branches—arithmetic, geography, history, and grammar. They organized and formulated these into a body of common knowledge.

In this policy, psychology and pedagogy played a most important part. The leading man in these two subjects was called the institute conductor. It was his work to organize the subject matter of the general reviews and to formulate the principles of teaching, and then to extend such work into the county institutes. These reviews and the pedagogy then appeared in the classroom work of the public schools and in the county superintendents' examinations for teachers. Hence the early normal school centered in reviews and pedagogy and psychology on a practical basis.

2. Some time prior to 1900 a new movement began in the normal schools of Wisconsin. An increasing number of teachers, direct or nearly direct, from the colleges and universities began to be employed in the normal schools. Most of these were well qualified to offer broad general courses in their chosen subjects, like the courses in the very best high schools. Many were well qualified and wished to offer intensive courses like those given in a college or a university. These teachers brought scholarship and breadth of view in the normal schools. But they transformed the normal school more and more into a high school with some college work. The colleges and universities in the decade from 1900 to 1910 have served as huge magnets to deflect the normal school from its own special field of service. Under these combined influences the normal school became partly the old-time normal school, partly the modern high school, and partly the college or university.

3. The new type of normal school is emerging. It is based on the principle that the normal school is a vocational school; that it is the best instrument for training kindergarten teachers, primary teachers, and grammar-grade teachers; that it may be used to train certain high-school teachers and special teachers; that its course of study and classroom instruction should be differentiated for special lines of service.

Desire for college credit should not eliminate valuable courses.—One of the factors that interfere with normal-school courses being limited to instruction that is specifically helpful to prospective teachers of certain grades is the desire to secure college or university credit elsewhere for all of the work that a student has taken in the normal school. Since universities may hesitate to give credit for such courses as "handwork for the primary grades," or, "arithmetic for the upper grades," normal-school students who are ambitious for college credits may neglect to take these courses, although they may be important in their future teaching. In Wisconsin, where academic

junior college courses have been organized in the normal schools, this danger is appreciated and is commented upon in the following quotation from the 1914-15 catalogue of the Milwaukee State Normal School:

All the courses in the normal school (with the exception of the college course and certain courses in the school of fine and applied arts) are designed to fit teachers for the schools of Wisconsin. The school is essentially a vocational school. The studies in the normal courses are selected for the value they are believed to have for prospective teachers, rather than for their quality of pleasing students or enabling the students at some future time to obtain credit at college for them. Incidentally, the work done at the normal school may, most, if not all of it, be made to count on a future college course for those students, and it is hoped there may be many who wish to continue their studies; but it is believed that normal students are serious-minded young people who know the purpose of a normal course and are willing to do what will best fit them for the work they propose to undertake.

**Departmental courses differentiated for primary grades and upper grades.**—When one compares the differentiated courses of study for primary teachers and upper-grade teachers, it may be found that they are very much alike in the general statement of the amount of work required in each department, but that the departmental courses are differentiated for the teachers of different grades. The latter differentiation is well illustrated in the catalogue of the Platteville (Wis.) State Normal School for 1914-15. For example, in the English department appears "Juvenile literature required of all who are preparing to teach in the primary grades," and "American literature required of all students who are preparing to teach in the upper grades." Another course is "Geography for lower-grade teachers," and "Geography for upper-grade teachers"; there are also similarly differentiated courses in history, manual arts, mathematics, psychology, and education.

**Electives should be restricted to courses specifically preparatory to grade of teaching elected.**—If it is true that two years beyond high-school graduation is a short time in which to train a prospective primary teacher well, and three years is probably necessary for training an upper-grade teacher, as postulated earlier in this chapter, the question arises whether any electives should be permitted in such courses. It is quite obvious that the question at issue concerning electives in such highly differentiated and specifically vocational courses as those described above is quite different from the question at issue in the organization of general courses of study in high schools and colleges. Confusion of these two types of situations has often led to the allowing of a considerable range of election in normal-school courses where there is no good reason to justify it. In general, when a student is specifically preparing himself for teaching in certain grades of the elementary schools, and is permitted to elect some of his courses, the following restrictions should

prevail: It should be assured (1) that he is neglecting no phase of the elementary-school course of study for which he needs training; (2) that all of the courses which he elects do give specific training for the grade of teaching that he expects to undertake; (3) that his elections have the approval of a competent faculty adviser who is free from departmental prejudices and bias.

**Lack of common units makes statistical statements unreliable.**—It was originally intended in this chapter to make a strong feature of a statistical table showing the percentages of the time devoted to the various subjects in the general two-year courses for high-school graduates in a large number of normal schools. Upon a careful study of normal-school catalogues, however, it became evident that an extensive and *reliable* study of this sort would be difficult to make from the available data. In the first place, some normal schools print no tabulated statement of their requirements for graduation. Others print a statement of the number of hours per week, but do not distinguish between laboratory or shop work on the one hand and “prepared” work on the other. In some such cases, if the item “Drawing \* \* \* 3 hours,” appears, it may mean any one of the following: (a) Three hours of studio work with outside preparation; or (b) three hours of studio work with no outside preparation; or (c) three double periods of studio work with outside preparation; or (d) three double periods of studio work with no outside preparation.

In some cases the catalogues state the requirements for graduation in terms of “units” or “credits.” In such instances a reader may feel reasonably sure that the recitation and laboratory or shop hours have been reduced to a common basis for credit.

The point under discussion is especially important in connection with the requirements in the fine and industrial arts and in music. The large variation shown in the percentages of such work required in different institutions and printed in the table on page 85 is probably due to the fact that in many of the higher cases the *time* hours were not reduced to credit hours in preparing the statements published in the catalogues, and in the lower cases they were. Hence, the calculations are probably reliable only in cases where the catalogues give the requirements in terms of units or credits, as at Ypsilanti, Mich., and Terre Haute, Ind.

*A suggestive table of time distributions is provided.*—After considerable unsuccessful endeavor to secure extensive, reliable calculations in spite of the difficulties mentioned above, it was decided to attempt such calculations in the cases of only a few schools and to submit the results as a sample of what is possible under present conditions. These results are shown in the tables on page 85. The experience in making them suggests the desirability of each State normal school formulating its units of credit and requirements for

graduation in well-defined, unequivocal terms, such as the high-school unit, or the quarterly credit hour, or the semester credit hour.

*Percentages of graduation requirements from the two-year courses for high-school graduates in certain State normal schools.*

[Based on gross data shown in table.]

Subjects.	Westfield, Mass.	Brockport, N. Y.	Newark, N. J.	Ohio (4 schools).	Terre Haute, Ind.	De Kalb, Ill.	Ypsilanti, Mich.	Madison, S. Dak.	Springfield, S. Dak.	Hays, Kans.	San Diego, Cal.	East Tennessee.	Harrisonburg, Va.
Education.....	10	14	15	23	16	16	17	26	34	19	12	28	22
Practice.....	16	27	26	14	8	15	8	15	13	6	23	4	12
History.....	6	4	5	6	8	6	4	4	2	0	5	0	8
Geography.....	5	5	5	6	8	3	4	4	3	0	8	0	3
English.....	10	14	13	14	20	14	13	7	6	6	10	10	17
Science.....	11	5	12	5	8	13	4	13	0	13	11	0	9
Mathematics.....	6	5	5	6	8	11	4	11	4	13	5	0	6
Undistributed special methods.....	9	0	0	0	0	0	0	4	0	0	0	4	0
Manual and fine arts.....	16	16	11	3	12	5	8	5	5	19	8	0	10
Music.....	7	5	3	0	4	5	0	3	5	0	4	0	6
Physical education.....	4	5	5	3	4	5	0	0	0	3	8	0	6
Electives.....	0	0	0	20	4	8	38	0	29	19	7	52	0

*Requirements for graduation (percentages) from the two-year courses for high-school graduates in certain State normal schools.*

[Gross data as derived from catalogues reduced to percentages in table.]

Subjects.	Westfield, Mass. <sup>1</sup>	Brockport, N. Y. <sup>2,3</sup>	Newark, N. J. <sup>3</sup>	Lower Ohio schools, <sup>3,4</sup>	Terre Haute, Ind. <sup>5</sup>	De Kalb, Ill. <sup>1,6</sup>	Ypsilanti, Mich. <sup>3,7</sup>	Madison, S. Dak. <sup>1,8,9</sup>	Springfield, S. Dak. <sup>1</sup>	Fort Hays, Kans. <sup>2,10</sup>	San Diego, Cal. <sup>3</sup>	East Tennessee. <sup>1</sup>	Harrisonburg, Va. <sup>1,9</sup>
Education, total percentages.....	14	16	17.5	14	4	21	4	38	41	12	10	34	35
Distribution:													
Psychology.....	6	5	8	3	2	12	2	5	10	.....	.....	8	.....
Pedagogy.....	4	5	5	3	1	9	1	10	5	.....	.....	4	9
History of education.....	2	2	.....	.....	.....	.....	.....	5	5	.....	.....	.....	5
School management.....	4	.....	2.5	3	.....	.....	.....	3	10	.....	3	4	5
Child study.....	.....	.....	.....	.....	.....	.....	.....	.....	8	.....	.....	.....	5
Principles of teaching.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
Principles of education.....	.....	.....	.....	.....	1	.....	.....	5	.....	.....	4	5	3
Educational psychology.....	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	.....	5	8
General method.....	.....	4	.....	3	.....	.....	.....	.....	.....	.....	3	.....	.....
Administration and organization.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Logic.....	.....	.....	.....	.....	.....	.....	.....	5	3	.....	.....	.....	.....
Ethics.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Educational sociology.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Practice, etc., total percentages.....	23	30	30	9	2	20	2	20	15	4	19	5	19
Distribution:													
Teaching.....	23	.....	28.5	6	2	20	2	20	15	.....	15	.....	16
Observation.....	.....	.....	1.5	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
Conferences.....	.....	30	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	3
Observation and practice.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....
History and social sciences, total percentages.....	8	4	5.5	4	2	8	1	10	2	.....	7	.....	13

<sup>1</sup> Periods per week per term.

<sup>2</sup> Periods per week per semester.

<sup>3</sup> Requires some additional work in rhetoricals and essays, time not specified.

<sup>4</sup> Computed for course for teachers in upper grades, as given on page 53 of the normal-school bulletin issued by the State department of public instruction.

<sup>5</sup> Unit of credit based on completion of term's work in subject.

<sup>6</sup> Requires additional work in school management from students expecting to become principals.

<sup>7</sup> Additional requirements in music, penmanship, and physical training, time not specified.

<sup>8</sup> A requirement in physical culture, time not specified.

<sup>9</sup> Computed for course for teachers in upper grades.

<sup>10</sup> Education (page 24 of catalogue) is assumed to include 4 hours of required practice (page 30).

*Requirements for graduation (percentages) from the two-year courses for high-school graduates in certain State normal schools—Continued.*

Subjects.	Westfield, Mass.	Brockport, N. Y.	Newark, N. J.	Lower Ohio schools.	Terre Haute, Ind.	De Kalb, Ill.	Ypsilanti, Mich.	Madison, S. Dak.	Springfield, S. Dak.	Fort Hays, Kans.	San Diego, Cal.	East Tennessee.	Harrisonburg, Va.
<b>Distribution:</b>													
United States history.....	4	4	5.5	4	2	8	1	...	...	...	3	...	5
General history.....	4	...	...	...	...	...	...	...	...	...	3	...	...
Contemporary history.....	...	...	...	...	...	...	...	1	2	...	...	...	...
State history.....	...	...	...	...	...	...	...	...	...	...	...	...	...
Civics.....	...	...	...	...	...	...	...	4	...	...	1	...	5
Sociology.....	...	...	...	...	...	...	...	5	...	...	...	...	...
Economics.....	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Geography, total percentages.....</b>	<b>7</b>	<b>5</b>	<b>6</b>	<b>4</b>	<b>2</b>	<b>4</b>	<b>1</b>	<b>5</b>	<b>3</b>	<b>...</b>	<b>4</b>	<b>...</b>	<b>5</b>
<b>English, total percentages.....</b>	<b>14</b>	<b>15</b>	<b>14.5</b>	<b>9</b>	<b>5</b>	<b>18</b>	<b>3</b>	<b>9</b>	<b>7</b>	<b>4</b>	<b>8</b>	<b>12</b>	<b>26</b>
<b>Distribution:</b>													
Reading, phonics.....	...	5	{ 3.5	2	2	6	1	4	{ 2	...	...	...	6
Spelling.....	...	...	{ 3	7	2	4	1	5	{ 5	...	...	4	...
Grammar.....	...	...	...	...	...	...	...	...	...	...	...	...	...
Composition.....	3	5	5	...	1	4	1	...	...	...	...	...	10
Language.....	...	...	{ 5	...	...	...	...	...	...	...	...	...	10
Literature.....	5	5	...	...	...	4	...	...	...	...	...	8	...
Rhetoric.....	...	...	...	...	...	...	...	...	...	...	...	...	...
Expression.....	6	...	2.5	...	...	...	...	...	...	...	4	...	...
Undistributed.....	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Sciences, total percentages.....</b>	<b>16</b>	<b>5</b>	<b>13.5</b>	<b>3</b>	<b>2</b>	<b>17</b>	<b>1</b>	<b>17</b>	<b>...</b>	<b>8</b>	<b>9</b>	<b>...</b>	<b>14</b>
<b>Distribution:</b>													
Nature and elementary science.....	12	5	1.5	...	...	...	...	5	...	...	2	...	9
Physiology and hygiene.....	...	...	2	...	2	...	1	3	...	...	4	...	5
Agriculture.....	...	...	2	...	...	...	...	...	...	...	...	...	...
Biology.....	...	...	5	{ 3	...	12	...	9	{	...	3	...	...
Physics.....	...	...	...	...	...	5	...	...	...	...	...	...	...
Chemistry.....	4	...	...	...	...	...	...	...	...	...	...	...	...
Applied science.....	...	...	3	...	...	...	...	...	...	...	...	...	...
<b>Mathematics, total percentages.....</b>	<b>9</b>	<b>6</b>	<b>5.5</b>	<b>4</b>	<b>2</b>	<b>14</b>	<b>1</b>	<b>14</b>	<b>5</b>	<b>8</b>	<b>4</b>	<b>...</b>	<b>10</b>
<b>Distribution:</b>													
Arithmetic.....	9	6	{ 5.5	4	2	4	1	5	5	...	4	...	10
Algebra.....	...	...	...	...	...	5	...	...	...	...	...	...	...
Geometry.....	...	...	...	...	...	5	...	4	...	...	...	...	...
Trigonometry.....	...	...	...	...	...	...	...	5	...	...	...	...	...
<b>Undistributed:</b>													
Special methods, total percentages.....	12	...	...	...	...	...	...	5	...	...	...	5	...
<b>Manual and fine arts, total percentages.....</b>	<b>22</b>	<b>18</b>	<b>12.5</b>	<b>2</b>	<b>3</b>	<b>6</b>	<b>2</b>	<b>8</b>	<b>6</b>	<b>12</b>	<b>7</b>	<b>...</b>	<b>15</b>
<b>Distribution:</b>													
Drawing.....	12	8	2	2	1	6	2	3	6	...	5	...	6
Penmanship.....	...	2	2.5	...	1	...	...	2	...	...	...	...	...
Manual training.....	6	8	8	...	1	...	...	3	...	...	2	...	6
Domestic science.....	...	...	...	{ 1	...	...	...	...	...	...	...	...	...
Sewing.....	4	...	...	...	...	...	...	...	...	...	...	...	...
Art appreciation.....	...	...	...	...	...	...	...	...	...	...	...	...	3
<b>Music, total percentages.....</b>	<b>10</b>	<b>6</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>6</b>	<b>0</b>	<b>4</b>	<b>6</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>9</b>
<b>Physical education, total percentages.....</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>13</b>	<b>1</b>	<b>10</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>7</b>	<b>0</b>	<b>10</b>
<b>Electives, total percentages.....</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>35</b>	<b>12</b>	<b>6</b>	<b>62</b>	<b>0</b>	<b>0</b>
<b>Total requirements, percentages.....</b>	<b>141</b>	<b>111</b>	<b>115</b>	<b>64</b>	<b>25</b>	<b>130</b>	<b>24</b>	<b>130</b>	<b>120</b>	<b>62</b>	<b>84</b>	<b>120</b>	<b>156</b>

## Chapter X.

### THE ORGANIZATION OF PRACTICE TEACHING.

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**Further discussion of practice teaching facilities.**—As intimated a number of times in this bulletin, the organization of practice teaching probably constitutes the most important single phase of the actual training of teachers by normal schools. In view of the importance of the work, Chapter V was entirely devoted to the discussion of the facilities for practice teaching in any given community as a factor in determining and limiting the extent to which a normal school established there could serve the State by training teachers. This involved an elaborate analysis of the amount of practice teaching to be required, the conditions under which it should be carried on, and standards for measuring the amount which a given number of children might afford. The essential points were (1) that a large part of the practice teaching should be done under regular school conditions and (2) that every prospective teacher should do from a minimum of 100 hours to a maximum of 90 half days of actual teaching. Again, in the chapter on normal-school faculties, the number and salaries of the critic teachers were discussed with emphasis on the very great importance of the latter in really improving the efficiency of prospective teachers.

**Four factors to be considered in this chapter.**—The present chapter will take up a consideration of the actual organization and conduct of practice teaching. The most important factors in this organization are (1) the director of the training school and his staff of critic teachers, (2) the detailed printed course of study of the training school, (3) the practical and differentiated character of the departmental courses in the normal school in relation to the course of study of the training school, and (4) a carefully standardized routine (described in mimeographed or printed form) for guiding the administration of the practice teaching.

#### 1. THE DIRECTOR AND STAFF OF THE TRAINING SCHOOLS.

**Director should be a master of elementary- and normal-school problems.**—The director of the training school is the most important officer in a normal school excepting the president. He should possess



many of the same qualifications as were described for the president on page 42. He should be thoroughly informed concerning all phases of elementary school work—that is, he should be able to make a good detailed course of study for all subjects in all grades and should have good critical judgment in the choice of methods. He should have broad training in education and be qualified to teach most of the courses in the department of education. He should have unusual administrative ability, including both force and tact, in order that he might ably assist the president in securing efficient cooperation by all members of the faculty in training prospective teachers for the real concrete detailed tasks which they will undertake when they begin to teach.

*Director should have full charge of training school and department of education.*—If he is such a competent person as here described, he should be given full charge of the training school and of the department of education (including psychology), subject only to supervision by the president. In view of the importance of his position, if he is thoroughly competent every effort should be made to keep him for many years of service.

*Director's salary should be larger than any other instructor's.*—Hence his salary may justly be 50 per cent larger than that of any other instructor in the faculty, since the loss of a competent departmental teacher is not one-tenth as serious in the continuous efficient conduct of the training of teachers in the normal school as the loss of a competent director of the training school. In the chapter on salaries we noted one example of the recognition of the superior value and services of such a director of the training department, namely, in the State normal school at De Kalb, Ill., where his salary was \$4,500, compared with \$5,000 for the president, \$3,450 for the professor of pedagogy, and \$2,530 for most heads of departments. The undoubted superiority of the organization of the practice situation at De Kalb certainly justifies this large salary. Some of the details of this organization will be discussed in later sections of this chapter.

**Competent critics needed; each should supervise only eight practice teachers at one time.**—The importance of the immediate assistants of the director of the training department, namely, the critic teachers, was emphasized on page 73 and the number needed in a typical faculty was discussed on page 69. It was estimated that under the best conditions for the children one critic teacher could supervise only 12 graduates a year if these did *all* of their teaching (100 hours) under one critic (see pages 68 to 73). This would mean 4 practice teachers a term for each critic. If each practice teacher taught only *half* of her 100 hours under one critic (5 hours a week for 10 weeks) and did the remainder under another critic, each critic

could supervise during 1 week 4 practice teachers for each of the 2 groups of 20 pupils under her charge, making a total of 8 practice teachers per critic teacher. In normal schools, where the importance of practice teaching is recognized, critic teachers are not assigned more than 8 practice teachers at one time and in some places not more than 4. On the other hand, printed reports of some schools show as many as 15 to 20 practice teachers under the direction of 1 critic teacher at one time, and oral reports are occasionally given of critic teachers having charge of 25 to 30 practice teachers at one time. Obviously this is absurd, when one takes into consideration the needs of the children and of the practice teachers and the available energy of a critic teacher. The teaching of the children under these conditions must be far inferior to that in the best public schools and the supervision far inferior to that which a beginning teacher would receive under a good building principal in a good public-school system.

*Competent supervision and criticism require unusual skill.*—The greatest art in teaching is the skilled supervision of teaching. Hence competent critic teachers must be unusually well-qualified persons. They must be good teachers themselves, must be able to analyze teaching so as to describe it and discuss it with practice teachers, and must be able to direct young teachers under conditions of unusual nervous strain which call for the exercise of great tact and discretion.

Needless to say, the personal factor is such a large element in the matters discussed in this section of the chapter that examples from normal schools must be omitted. In the next section, on course of study, however, matters are so objective that examples can be safely given.

## 2. COURSE OF STUDY OF THE TRAINING SCHOOL.

**Good printed course more necessary even than in city schools.**—The second factor in determining the efficiency of the practice teaching in a normal school is the existence of a detailed printed course of study of the training school. The importance of such a course of study in improving the efficiency of State and city school systems is generally recognized. In such systems the teachings of a single group of children in the regular subjects is usually done by *one teacher for a year*. If a detailed printed course of study is important in such cases, it is *obviously of much greater importance in a training school where a single group of children may have anywhere from 4 to 50 different teachers in the regular subjects during a year*. Apart from the efficiency of the training of the practice teachers, the welfare of the children demands some such definite guide for practice.

*Welfare of the children emphasized in New Hampshire training schools.*—This phase of the subject is well presented in the report of

State Supt. Morrison, of New Hampshire, for 1911-12 (p. 153). In discussing the model and practice schools at the Plymouth and Keene State Normal Schools he says:

It should be understood that the State has an obligation to the people of Plymouth and Keene in connection with these schools which ought to be observed to the utmost. The normal schools proper are the State's own affair, but the school districts of Plymouth and Keene entrust their children to the agents of the State in order that the State may train teachers for service all over the State.

In the last report of this office the criticism was made that while the schooling which the children received tended to make them mentally alert, it left them far from capable in any of the specific arts of the schoolroom. No course of study was followed and nobody could tell at any given time whether the schools were making good their expectations or not.

In connection with the reorganization which the trustees adopted, it was aimed to correct this defect. The model and practice schools, viewed simply as public schools, are in better condition to-day than at any time in recent years, at least so far as the arts fundamental to all education are concerned. They will average well with the best class of schools of the State, but they can not be said to be the best of their class.

**State or city course of study should be followed.**—The course of study adopted by the trustees of the New Hampshire normal schools was the State course of study, and it was made the basis of the work not only in the model and practice schools, but also in the normal departmental classes. It is clear that this is a desirable basis for procedure in States where there is an efficient central State department of education and a well-standardized course of study. The next best step in adopting a standard course of study for a training school is to follow the main outlines of the course in operation in the city in which the normal school is located, if the city schools are to be used at all for practice teaching purposes, as is necessary in most places. Such modifications as are necessary can be made by the director of training.

*Close coordination with city schools at De Kalb, Ill.*—Perhaps the best example of the practice just described is the course of study for the training department of the State normal school at De Kalb, Ill. This was prepared under the direction of C. A. McMurry, director of the training department there until 1915, who is largely responsible for making this one of the best training departments in the country. The relation of the course of study to the city schools, as well as certain other important aspects of the training situation at De Kalb, are brought out in the following quotation from the introductory statement by Prof. McMurry (p. 3 of Course of Study):

The training department of the Northern Illinois State Normal School is provided for in two houses, one a complete and well-equipped building on the campus and the other the Glidden School, on South First Street, in De Kalb. Each of these schools serves as a regular ward school for the city and has the

same supervision as the other ward schools of the city. About 600 children are provided for in these schools.

As a rule every regular schoolroom is provided with a critic, who closely directs and supervises the work of the student teachers who instruct the children in her room. The principals of buildings, besides the duties of general management, reinforce this careful supervision of class instruction. The lessons are so carefully planned and organized beforehand that student teachers are generally able to find their way quickly into effective teaching.

Two terms of teaching, on half-day time, are the regular requirements for student teachers before graduation. Room charge, or the general management of all classes in a room, is required for one of these terms. Each student in training is required also to attend "critique lessons," that is, illustrative exercises with regular classes given by the room critics or by other experienced teachers. Later these lessons are fully discussed by students and critics.

The heads of departments and other regular teachers in the normal school participate freely in the training-school work, either by advice or direction of students in special departments, such as music, drawing, manual arts, literature, history, nature study, arithmetic, etc., and also by presenting and discussing critique lessons.

The following course of study has been carefully worked out by the superintendent and teachers, aided by the normal-school instructors in their special departments. Many of the more important topics or units of study have been elaborately worked out and the material thus brought into shape has been reduced to printed or typewritten form for the ready use of teachers in all the schools of the city. The same course of study is followed in all the schools of De Kalb, and the training schools thus approximate closely, in material and methods, the usual work of schools.

*The De Kalb course of study.*—The De Kalb course of study is a pamphlet of 83 pages and consists of very brief concise statements concerning the general character of the work in each subject, followed by detailed descriptions of the topics taken up in each grade. The outlines of some of the more unorganized or newer subjects, such as nature study, are especially full and detailed.

*Ready-made outlines assist practice teacher to concentrate on technique of teaching.*—The second sentence in the last paragraph quoted above described one unique phase of the work at De Kalb which is especially valuable, namely, the accumulation of outlines, references, illustrative and other materials that the practice teacher can make ready use of in getting her subject matter in shape for teaching. The assumption at the basis of this plan is that the practice teacher should be in a position to concentrate most of her time, energy, and attention on the technique of teaching. The practice-teaching period of a student's education is certainly not the time when she should be mastering the subject that she is to teach. This should be definitely provided for in the departmental courses which should precede the assignment to teaching.

The general plan of organizing the material of practice-teaching units referred to above was described at length by Prof. McMurry in a paper read at the meeting of the normal school section of the

National Education Association in Cincinnati in 1915 and which is printed in the proceedings of the association.

**Sample courses of study of training schools.**—Among other courses of study for training schools are those from the State normal schools at Salem, Mass., Harrisonburg, Va. (1912), Carbondale, Ill. (1914), Winona, Minn. (1909), Warrensburg, Mo. (1910), Normal, Ill. (1912), and Chico, Cal. (1914).

*Winona course of study prepares for real Minnesota conditions.*—The course of study from Winona, Minn., was published in 1909 as a revision of earlier editions of 1903 and 1907. The endeavor to relate the course of study to real school conditions in Minnesota is expressed in the following quotation from the preface (p. 4):

In assisting to modernize the course of study for elementary schools we realize that a normal school must not go too far from the commonly accepted course of study, lest student teachers be handicapped by being thrown into situations too strange, when, after graduation, they begin their independent teaching. Consequently, this course of study is not so much an expression of what we might like to do as it is a statement of what seems practicable in the schools of Minnesota. That is to say, we try to have in our elementary school for the observation of our student teachers, not a course that is theoretically ideal (if there could be such), but one that is usable in any graded school in the State.

*Chico (Cal.) course of study.*—In the foreword of the Chico (Cal.) course of study (1914) it is stated that this is the first printed course of study that the training school as such has had, and that its purpose is to serve as a suggestive working manual for the use of supervisors and student teachers and to develop more coordination and correlation between the normal school and the training school.

*Detailed courses of study for geography at Chico.*—Other significant publications from Chico are two bulletins dealing with the teaching of geography, by C. K. Studley, supervisor of geography. The first has two parts entitled "Map Geography and Journey Geography for Beginners." The second bulletin is entitled "Geography for the Fifth and Sixth Grades." These were published in 1912 and 1913 and include about 150 pages of detailed directions and outlines for teaching geography. In the preface it is stated that these courses of study are all the outgrowth of the work in the elementary department of the Chico State Normal School and are intended to serve as a labor-saving device for teachers.

The last sentence suggests the main issue in this section of the chapter, namely, the development of very definite detailed courses of study as the second important factor in the effective and economical administration of practice teaching.

### 3. PRACTICAL DIFFERENTIATED DEPARTMENTAL COURSES.

**Differentiated departmental courses should prepare directly for practice teaching.**—The third factor in developing an effective

practice teaching situation is the organization of practical and differentiated departmental courses which are focused directly on the subject matter and methods of the part of the elementary school in which the prospective teacher expects to teach. The general importance of giving this type of instruction was emphasized in the preceding chapter on course of study. Its relation to the practice teaching is even more obvious and important. There may be some chance that the student who has been given a certain type of course in primary geography will not have an opportunity to teach such work in the school system in which she is employed; but if the normal-school courses and the training-school courses are correlated, as they should be, the *practice* work in geography would certainly be along the same lines as the normal-school courses in geography.

*Correlation may be secured by having instructors teach in both schools.*—The simplest administrative method of securing this correlation is to require instructors to teach in both places, namely, in the normal school and in the training school. This arrangement is not uncommon in the normal schools of the North Atlantic States. For example, in the catalogue of the Salem (Mass.) State Normal School, we find the following paragraph in a discussion of the training schools (p. 16):

In planning the instruction in these schools the aim is to connect it as closely as possible with the work in the normal school, to the end that the methods of teaching here may exemplify the theory which the normal-school students are taught. In the training school a large part of the instruction is either supervised or actually given by normal-school instructors, and instruction in the normal school is largely based on directed observation in the training department in particular subjects as well as in the theory of education.

*President should insist on correlation of work of normal and training schools.*—In general, it is the task of the president of the normal school to make sure that the course of study of the training school does correspond roughly to average courses of study of the district that the normal school serves, and to make equally sure that all normal-school courses prepare definitely and thoroughly for the successful teaching of this course of study.

Normal-school instructor must patiently master details of his subject.—The greatest difficulty is found in the fact that so many normal-school instructors feel that they are too big for the detailed work required in such a scheme. As a matter of fact, the positions are too big for the instructors. Definitely and thoroughly to organize the material of any elementary-school subject is a big achievement. But it is a big achievement that requires patient mastery of many details. Hence, a normal-school instructor who is not energetic and persistent is likely to spend his time telling how it should be done, instead of organizing materials so as to help teachers to do it.

Possibilities in normal-school positions illustrated by achievements of Charles McMurry.—The possibilities of a normal-school instructor achieving big results by careful, persistent detailed work are well illustrated in the many practical publications of the former director of the training school at De Kalb, Ill., namely, Prof. Charles McMurry, who has done more in formulating the material of instruction in several subjects than most departmental normal-school instructors have done in their own special subjects.

If the departmental courses give students a body of organized material and methods which are of practical value, the third factor in the effective organization of practice teaching will be provided for.

#### 4. STANDARDIZED ROUTINE FOR ASSIGNMENTS AND SUPERVISION.

Saves time and confusion in a complicated social situation.—The fourth factor in the effective conduct of practice teaching is the organization of a standardized routine for assignments, preparation of material, supervision, and reports. This routine should be concisely described in a mimeographed or printed handbook for practice teaching. A practice-teaching organization is a very complicated social situation into which new members are being introduced constantly. In order to save confusion and to economize time, if for no other reasons, such a handbook should be provided. It saves much reiteration of directions orally and eliminates many possibilities of misunderstanding. It is of great help not only to new practice teachers, but also to new critic teachers.

Content and value of handbook for practice teaching.—Such a handbook should contain the fundamental regulations governing practice teaching, information concerning the routine of the elementary school, directions for lesson plans, and a concise formulation of the fundamental points in the technique of teaching to which practice teachers and critic teachers should give attention. Such an outline of the points in technique is especially helpful to new critic teachers, who are often at great loss to know how to analyze and discuss with practice teachers the teaching which the latter do.

*Best handbook published by McMurry.*—Again in this field we find the best production to be one from the De Kalb Normal School, namely, the *Handbook of Practice for Teachers*, by Charles McMurry, published in 1914. (The Macmillan Co.) In view of the fact that anyone can easily purchase this book, it need not be described. Other handbooks for practice teaching are published by the State normal schools at Platteville, Wis. (1901 and 1907); Peru, Nebr. (1905 and 1909); and Chadron, Nebr. (1913).

Progressive reforms need efficient management to succeed.—In general, normal-school instructors are likely to be carried away with

enthusiasm for progressive reforms in education which they have vaguely conceived, and fail to realize that the success of progressive reforms depends upon the efficiency with which reformers apply principles of business management in organizing and standardizing their instruction. A well-organized handbook describing such an organization for practice teaching is the fourth factor in securing effective conduct of this most important phase of normal-school work.

**Some descriptions of practice-teaching organizations.**—In order to put the reader in touch with a few examples of practice-teaching situations, this chapter will conclude with two quotations from typical normal-school publications or reports. Attention is called to the examples already described in the chapter on practice-teaching facilities, namely, those in the normal schools at Mayville, N. Dak.; Plymouth and Keene, N. H.; De Kalb, Ill.; and Providence, R. I. (p. 49).

*Practice teaching at Charleston, Ill.*—The following quotations are from the 1913-14 catalogue of the State normal school at Charleston, Ill., which ranks high among American normal schools. It maintains its own training school. The catalogue states that:

At present the school has eight critic teachers, one for grades 1 and 2, one for each of the other six grades, and a special teacher for the work in history (p. 16).

The critic teachers do the greater part of the teaching, then, because it is believed that experience in teaching is valuable only when based on sound educational principles, which are illustrated by a teacher of marked ability directing a well-trained class. Observation of the expert, followed by practice, and this again by observation should be the rule (p. 17).

A considerable part of the teaching is done by the student teachers. All students graduating from the normal school are required in their senior year to take throughout the year a course in practice teaching. For this purpose the school year is divided into four quarters. Each quarter the list of student teachers is divided into as many groups as there are critic teachers, and one group is assigned to each critic for the quarter. By the critic teacher the student is assigned to teach a particular subject in her grade. Each quarter the student is assigned to a different grade, usually two grades in advance of his previous assignment, and to a different subject, until the fourth quarter, when the student's preference for grade and subject is considered.

In the beginning of the first quarter the student makes plans for teaching the lessons in his assigned subject after discussing the subject matter with the critic teacher, but for about two weeks the teaching is done by the critic teacher, the student observing. Gradually the teaching is turned over to the student, the critic teacher observing, and discussing the lessons and lesson plans before and after the student teaches the lesson. Each critic teacher holds one general meeting each week with her group of students, besides special conferences with individuals. She also does as much of the teaching throughout the quarter as seems to her necessary to keep the class up to standard and to furnish the student opportunity to observe expert teaching (pp. 34 and 35).



*Practice teaching at Emporia, Kans.*—The following quotation from a typewritten report kindly furnished by President Butcher, of the State Normal School at Emporia, Kans., in the fall of 1914, shows how a scheme somewhat similar to that described above works in a large, well-organized normal school with a small training school, containing approximately 180 children, divided for practice-teaching purposes into 15 groups of about 12 pupils each. The report reads, in part, as follows:

*Student teachers.*—Our group of student teachers this semester consists of the following numbers: Kindergarten, 5; primary, 26; first intermediate, 19; second intermediate, 22; grammar grades, 25; athletic coaching, 3; high school, 15; a total of 115. Considering this work from primary to the grammar course, inclusive, we find that the number of groups of children permits only an average of  $3\frac{1}{2}$  hours per week of actual instruction for each student teacher. This student teaching continues for a period of 18 weeks, making thus an average of 63 hours of actual instruction in the training school for the life certificate. This student teaching is supplemented by systematic observation under the direction of the critic teachers in certain types of work other than that taught by the student teacher. Except in the case of teachers of unusual skill the student teacher continues with the same teaching throughout his term of 18 weeks. Exception is made to this rule if for any reason inappropriate assignment of teaching has to be made at the beginning of the term. Of course, in the majority of cases this assignment for the 18 weeks comprises throughout the entire time more than one type of work. For example, teachers may be teaching drawing and arithmetic or physical training and language.

## Chapter XI.

### THE TRAINING OF RURAL TEACHERS.

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Two recent bulletins of the Bureau of Education devoted to this topic.—The training of teachers for rural schools constitutes an important part of the work of State normal schools in certain sections of the country where from 50 per cent to 75 per cent of the students in the normal school become rural teachers. In view of this fact it would be quite appropriate to devote a special chapter to a discussion of the courses of study for such teachers were it not for the fact that the Bureau of Education has issued recently two special bulletins which contain a thorough review and discussion of the whole problem of the training of rural teachers. These bulletins are No. 2 for 1913 and No. 49 for 1914. The former is entitled "Training Courses for Rural Teachers," and was prepared by A. C. Monahan, of the Bureau of Education, and R. H. Wright, of the State Normal School at Greenville, N. C. The second bulletin is entitled "Efficiency and Preparation of Rural School Teachers," and was prepared by H. W. Foght, specialist in rural-school practice of the Bureau of Education.

Some State normal schools intensely interested in training rural teachers.—The general interest manifested by the normal schools in the training of rural teachers is described in the following paragraph from page 36 of Mr. Foght's study:

The normal schools should, theoretically at least, be able to prepare teachers for all kinds of schools. Practically, however, they have not always been able to do so. The demand for trained teachers in the city and village schools has in most sections of the country been so great as to absorb all the energies of the schools, leaving little or no time to consider the needs of rural communities. Certain geographical sections of the country, notably the North Atlantic division, have now little genuine agricultural life. Here, naturally enough, the normal schools do not devote much of their time to rural teachers. In such agricultural sections as the North Central and South Central divisions, on the other hand, rural teachers are in the majority. Now that educational ideals are undergoing great changes in these sections of the country, it is reasonable to expect that the normal schools will be prompt to respond to the new needs. These schools have always been ready to adapt themselves to prevailing conditions. In a sense they are so near to public thought all the time as to be "more nearly to-day an actual exponent of public sentiment than any other public institution of equivalent magnitude." The best evidence of this is that the normal schools situated in the agricultural sections of the country are at this time straining every energy to be of greatest assistance in rural-teacher preparation.

**Normal-school efforts supplemented by teacher-training courses in high schools and county normal schools.**—Obviously, the training of teachers for all of the rural schools of a given district of the State is entirely too large a problem for the normal school which serves this district. This fact has been keenly realized in recent years in a number of States, and arrangements have been made to organize teacher-training courses in local high schools or county normal schools. A complete description of these courses is found in the bulletin by Monahan and Wright, mentioned above, which also contains (on pp. 11 to 35) a description and summary of the courses for rural teachers offered in the State normal schools. In the bulletin by Mr. Foght, the discussion of the work of State normal schools in this line is brought down to a later date. Owing to the ease with which these bulletins may be secured and the fact that they are now quite generally known to persons interested in the training of rural teachers, no further discussion of the organization of such training by State normal schools will be provided in this bulletin.

## Chapter XII.

### TRAINING OF HIGH-SCHOOL TEACHERS AND CONFERRING OF DEGREES.

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Constitutes a small part of the work of a few State normal schools.—The training of high-school teachers is a problem in which a few normal schools have manifested intense interest. For the most part, however, State normal schools are training relatively few high-school teachers as compared with the number of elementary teachers which they train. Hence a discussion of the present activities of normal schools in training high-school teachers is relatively unimportant.

Rapid increase of high schools may necessitate training of such teachers in normal schools.—The enormous increase in the number of high schools during the last two decades, however, makes the training of teachers for them a very serious problem, and it is quite possible that in some States the careful development of special facilities for training high-school teachers by the normal schools will be a part of the solution. The phrase “careful development of *special* facilities” in the last sentence should be emphasized, because the adequate training of high-school teachers by normal schools demands just as careful and thorough an organization of specialized, differentiated courses as was described for elementary teachers in the preceding chapter.

*Would necessitate new advanced academic and professional courses in normal schools.*—Some normal-school authorities, in their enthusiasm for additional students and additional courses, and without regard to efficient *specific* training and real per capita costs, maintain that the training of high-school teachers by normal schools would involve no additional expense to the State, since the normal schools already have organized the departments necessary to give such instruction. This naïve assumption overlooks entirely the necessity of organizing specific *advanced* courses in all high-school subjects, as well as *specific professional* courses in the historical, psychological, administrative, and methodological aspects of education. Unless such advanced academic courses are organized, the prospective high-school teachers will not be adequately trained in subject matter, and unless specific courses are organized in the history of secondary edu-

cation, in the psychology of high-school instruction, in methods of teaching in high schools, and in high-school administration the time spent in professional study by the prospective high-school teacher will be largely wasted as far as improving his efficiency as a high-school teacher is concerned.

*Academic high-school departments in normal schools tend to expand.*—Some of the State normal schools that seem to be the most concerned about becoming colleges for training high-school teachers have themselves barely graduated from the rank of high schools; that is, approximately 50 per cent of their students are still of high-school rank. Moreover, some of the same schools have been least successful in developing the type of training courses for elementary teachers which are generally admitted to be of first importance, namely, carefully differentiated courses with extensive provision for carefully supervised practice teaching. Probably the fact that they have been largely high schools, providing a large amount of purely academic instruction, explains the fact that they want to become colleges doing the same type of work. If they ceased to be high schools (as they must when local high schools develop), and became strictly effective normal schools for training elementary teachers, they would have to abolish their departments of Latin, German, chemistry, physics, and probably certain other departments. Obviously, the teachers in these departments, many of whom have been connected with the school for years (giving courses of high-school grade), do not desire to seek high-school positions elsewhere; they would prefer to become college professors. Needless to say, the necessity of transferring these teachers to other positions in the State should not be permitted to interfere for a moment with the abolishing of their department if this process seemed best to unprejudiced expert central State authorities who were making plans to have the State institutions serve the State most economically and effectively.

*Should investigate per capita costs before establishing new advanced academic courses.*—Moreover, in any State where the problem of establishing in State normal schools new departments of foreign languages, advanced mathematics, physics, and chemistry was being considered, the central State authorities would do well to look into the probable registration and consequent per capita costs in such departments.

The above argument is not intended to show that normal schools should not undertake the training of high-school teachers. To do so may be part of the best plan to supply the State with such teachers. It is merely intended to point out that it involves just as special an assumption of new, extra, specific tasks by the normal school as is involved in the establishing of new courses in any higher educational institution.

Examples of discussions by State authorities of training high-school teachers.—In keeping with the discussion up to this point, reference will be made to three States in which the problem of training high-school teachers is being given serious consideration, namely, Massachusetts, New Hampshire, and Minnesota.

*Massachusetts: Most high-school teachers are college graduates without professional training.*—Massachusetts has been a leader in educational development generally, and has certainly taken high rank in the matter of training elementary teachers. It would not be presumptuous to infer that it will do equally well eventually in providing professional training for high-school teachers. The whole problem is discussed at length by Commissioner Snedden in his report for 1912-13 (pp. 36-41). A few quotations will present certain aspects of the situation. Concerning the present staff of high-school teachers of the State he says (p. 37):

In the main, the high schools of the Commonwealth find their teachers among the graduates of the private and endowed colleges, of which there are nearly a score in the State. These graduates vary greatly as to the kind and degree of their professional preparation for the work of teaching. The fact that high schools now rarely employ as teachers persons not possessing an academic degree insures that these teachers have a fair general education. In perhaps a majority of cases they have had considerable college instruction in subjects closely related to those which they are expected to teach in the high schools. A minority of them have had, in addition, college courses in such subjects as the theory and practice of teaching, the history of education, educational psychology, and principles of method given by the departments of education which, within comparatively recent years, have been established in various higher institutions of learning.

It must, however, be said that, in spite of the equipment described above, almost all college graduates employed as teachers in high schools are, in relation to the work they are expected to do, deficient in professional training. Even though they have had courses in the subjects which they intend to teach, and also some theoretical courses in education, they necessarily approach their work as learners, as apprentices, to whom practical means and methods of effectively teaching boys and girls are as yet almost wholly unknown.

*Continue to rely on colleges for high-school teachers.*—Concerning the desirability of the State organizing special facilities for training secondary teachers, Mr. Snedden says (p. 39):

In Massachusetts, however, it seems inexpedient for the State to enter upon such work until existing institutions shall have had full opportunity to demonstrate their capacity to deal with this problem. They have heretofore trained substantially all such teachers, and have met the demands of the State and local communities in so far as these have been expressed in law or through such formal requirements as certification standards.

*Stimulate professional training by certification requirements.*—In order to make sure that graduates of existing institutions shall have adequate professional training, Mr. Snedden recommends the development of a scheme of certification of teachers which will

necessitate the organization of adequate professional courses in these institutions.

*Supt. Morrison would not train high-school teachers in normal schools.*—The general issues discussed earlier in this chapter are clearly expressed by State Supt. Morrison, of New Hampshire, in connection with the problem of training high-school teachers for that State. In his report for 1913-14 he writes as follows (p. 163) :

The question will perhaps naturally suggest itself, Why not train high-school teachers in the State normal schools? There are several good reasons why this is not practicable.

In the first place, the normal schools have enough and more than enough to do in the training of teachers for the elementary schools.

Secondly, teachers in the secondary schools need four years of academic as well as professional preparation, and they need the ripening process which comes out of four years of study. The normal-school program calls for two years of strictly professional training. To provide for the academic training of high-school teachers would necessitate the duplication of every existing normal school faculty with an academic faculty.

Finally, even were this done, the normal schools thus enlarged could not hope to offer the general advantages of the larger institutions, and the result would necessarily be an inadequate enrollment of inferior material.

*Minnesota: Cooperation of State authorities postponed training of high-school teachers in normal schools.*—In Minnesota we find an excellent example of the various educational forces of the State working together on the problem of giving degree courses in the normal schools as well as the matter of training high-school teachers. The State Normal School Board of Minnesota, of which the State superintendent is ex officio president, seems to cooperate with the presidents of the several State normal schools so as to develop efficiently the general normal-school situation. Moreover, the present president of the State university is an unusually broad-minded efficient educational and administrative expert. This situation makes it almost certain that any development in the training of teachers will be for the best interests of the State.

*Attitude of the president of the Winona State Normal School.*—As regards the training of high-school teachers, President Maxwell, of the State normal school at Winona, states that the Minnesota normal schools have no ambitions in this direction. The following paragraphs, quoted from his report for 1910-12, contain his statement (p. 105) :

There is no ambition on the part of the Minnesota normal schools to direct their efforts toward the preparation of high-school teachers. Our field is the elementary school. The elementary school alone, with increased salaries, with demands for better-prepared teachers in all grades, teachers of departmental work, and trained specialists and supervisors sufficiently justifies the enlarged facilities. The 80 or 90 high-school normal-training departments are seeking their teachers from among the number of experienced normal-school

graduates and have already created a demand which normal schools are unable to supply. Indeed, there is no field where the service of scholarship is more needed than in elementary education, rural and graded, none where the problems will continue to grow more as years go by, none whose solution will more fully minister to the welfare of the State. The normal school should regard these problems of elementary education as distinctly and quite exclusively its own and attack them with the enthusiasm and energy inspired by a great mission.

*Four-year degree courses for elementary teachers considered.*—A part of the history of the movement to develop four-year courses for elementary-school teachers and supervisors by the Minnesota State normal schools, and a description of the cooperative manner in which the problem was attacked are given in the following paragraphs quoted from the report of the president of the State normal school board for 1911-12:<sup>1</sup>

The harmonious relations between the normal schools and the State University and the unity which is characteristic of the State's educational institutions is evidenced by the arrangement made between the normal schools and the university, whereby advanced normal graduates receive credit for two years' of study upon entering the college of education. Through this arrangement, by two years' additional work in the college of education, the advanced graduate may earn the degree of that college. It is thought that this will have the effect of encouraging a larger number of young men to enter the normal schools, teach for a period, and at the same time afford an opportunity for both men and women who complete the advanced normal course to apply their training toward the earning of a college degree.

At the last session of the legislature a bill was introduced which had the approval of this board aiming to extend the present normal-school course by two years, thus making it possible to give the normal students a more thorough and complete training, and to train principals for graded schools, teachers for the training departments in high schools, and make the normal schools more effective agencies in the leadership and direction of public-school work.

This act failed to pass largely because of the fear that it would make possible, in time, the conversion of the several normal schools into normal colleges. At its meeting in August of the present year the normal board and the presidents, after a full discussion of this subject, decided to renew the request. In this connection a conference was held between the normal board and the presidents, with representatives of the State university, the private colleges, the members of the high-school board, and its inspectors. This conference developed a very friendly spirit and cooperative interest on the part of the educational institutions of the State and resulted in the normal board, upon the recommendation of the normal-school presidents, postponing for the present further activity in the effort to secure a law necessary to make the proposed extended course of study attractive to the students desiring to obtain the degree of bachelor of education.

**Normal schools may soon give four-year degree courses for elementary teachers.**—These quotations from the Minnesota reports illustrate the fact that (a) the training of high-school teachers and (b) the conferring of degrees by State normal schools may be separate problems. Several normal schools now give three-year courses

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<sup>1</sup> Report of Superintendent of Public Instruction for Minnesota, 1912, p. 95.



for high-school graduates who expect to teach in elementary schools, and it is quite conceivable that similar four-year courses will eventually prove necessary or desirable, and that bachelor's degrees should be conferred on the completion of such courses. These degrees should not be given for three-year courses, however.

*Three-year degree courses discredit normal schools.*—It is very unfortunate for normal schools that some of them have given or are giving bachelor's degrees for the completion of three years of work beyond high school. The fundamental reason for giving such degrees is not easy to ascertain, but the practice is probably related to the fact that it is difficult to get many students to attend most normal schools beyond the third year of collegiate work. They prefer to go to the State university. Even to get them to do three years of collegiate work in the normal school the degree must be offered as a special inducement. This has had the very bad effect of discrediting normal-school work in the estimation of many persons. They assume that since normal schools give a "cheap" degree, therefore all of the work of the normal schools is "cheap," unthorough, and incomplete. As a matter of fact, a normal school giving a bachelor's degree for three years of collegiate work may be superior to many standard colleges in the strength of its faculty and of its individual courses.

## Chapter XIII.

### THE TRAINING OF TEACHERS OF SPECIAL SUBJECTS.

Disproportionately large discussion of a small function.—The training of special teachers constitutes a small part of the work of State normal schools. Such training, however, excites an amount of discussion and planning that is proportionately much greater than the total amount of normal-school energy devoted to it. To read the requests of normal-school authorities for funds for new buildings and special equipments for the training of special teachers, and to survey the elaborate courses of study found in many of the catalogues, one would infer that these courses were intended to train a great many teachers. When the statistics showing the number of new special teachers employed in public schools, as compared with the number of general ones, are examined, and the number of graduates in the special normal courses compared with the number in the general courses, a better perspective view of the situation is obtained.

Only 8 per cent of new teachers are in special and vocational subjects.—The relative number of new general and special teachers employed during a year in a representative Eastern State may be seen from the following statistics, taken from the report of State School Commissioner Kendall, of New Jersey, for the years ending June 30, 1912, and June 30, 1913 (p. 130) :

Total number of new teachers:	<i>In 1912.</i>	<i>In 1913.</i>
In rural schools.....	1,006	1,055
In city schools.....	721	763
Total.....	1,727	1,818
This number was divided as follows:		
In high schools.....	217	200
In elementary schools.....	1,510	1,518
Total.....	1,727	1,818

Of this total, teachers of vocational subjects, such as manual training, domestic science, etc., and of special subjects, such as music, drawing, etc., were as follows:

Teachers of vocational subjects:	<i>In 1912.</i>	<i>In 1913.</i>
In rural schools.....	14	24
In city schools.....	46	51
Total.....	60	75

Teachers of special subjects:	In 1912.	In 1913.
In rural schools.....	23	55
In city schools.....	42	18
Total.....	65	73
Number of vocational and special teachers combined.....	125	148

Thus the number of new vocational and special teachers needed in New Jersey in a year constitutes only about 8 per cent of the total number of new teachers needed.

A new special subject creates temporary demand for teachers.—A further item that must be kept in mind in determining the relative number of special and general teachers needed is the fact that when special courses are being rapidly *introduced*, there is created an increased *temporary* demand for such teachers, which will decrease after most of the new positions have been filled. Such a situation has developed during the last few years in the preparation of teachers for home economics. The large temporary demand for teachers in this subject will probably soon decline to the proportions of the demands for teachers of music, drawing, and manual training.

Very small number of graduates in special courses in normal schools.—The relative number of graduates in the general and the special courses of the normal schools gives us evidence concerning the proportion of normal-school energy consumed in the training of special teachers.

Perhaps the most pessimistic account of the number of students graduating in the special courses is the following paragraph from the 1912 report of the president of the Mayville (N. Dak.) Normal School, which was opened in 1890. After stating that students do not take the advanced course for high-school graduates, the president says (p. 217):

Nor have any students graduated as yet from any of the special two-year courses for high-school graduates. The foremost reasons are (1) the sensible unwillingness of students to specialize at an age when the need of general education is so great, and (2) the relatively small demand for teachers of special subjects, especially in the smaller communities, where nearly all graduates at first go. There are, however, a great many students who take, as parts of general courses which they may be pursuing, from one to three terms' work in the special subjects and who are thus fairly well qualified to give elementary instruction in the subjects studied.

The following statistics from the Winthrop (S. C.) Normal and Industrial College throw light on the relative number of general and special positions secured by its graduates. The board of trustees in their report for 1913 (p. 16) state that from May to December the school had received 301 applications for teachers and had placed graduates as follows:

*Positions secured by Winthrop graduates.*

General positions:		Special positions:	
In high-school grades.....	16	In domestic science and re-	
In grammar grades.....	29	lated subjects.....	6
In elementary grades.....	32	Dietitian in hospital.....	1
In kindergarten grades.....	2	In music and manual train-	
In rural schools.....	38	ing.....	1
In mill schools.....	6	Expression in college.....	1
Supernumerary in Charles-		Total.....	9
ton schools.....	1		
Total.....	124		

Further evidence concerning the number of special and general graduates may be obtained from the following statistics of graduation reported for the Mount Pleasant (Mich.) Normal School in the report of the State board of education for 1912 (p. 29):

*Graduates from Mount Pleasant (Mich.) Normal School, July 1, 1911, to July 1, 1912.*

In the general courses (life certificate, kindergarten-primary, graded school, advanced, and elementary rural-school courses).....	226
In courses for special teachers:	
Public-school music course.....	2
Drawing and manual-arts course.....	6
Music and drawing course.....	4
Manual-arts course.....	3
Special drawing course.....	1
Total graduates.....	16
Total graduates.....	242

In this school the graduates in the courses for special teachers constituted only 7 per cent of the total number of graduates. Moreover, the number in any special subject was so small that the maintenance of adequate special courses to give this number special training must have been relatively quite expensive. As we shall notice below, the Michigan State Board of Education adopted a plan to go into effect in 1913 that corrected this situation.

A slightly greater proportion of special graduates is shown in the following statistics of graduation from the Northern Illinois Normal School, at De Kalb, based on the quarterly announcement for August, 1914:

*Seniors of 1914 in Northern Illinois Normal School.*

In courses for general teachers (1, 2, 3, and 5 year courses).....	118
In courses for special teachers:	
2-year course in vocal music.....	3
2-year course for teachers of drawing.....	5
2-year course for teachers of manual training.....	4
2-year course for teachers of domestic science.....	16
Total number of seniors.....	28
Total number of seniors.....	146

Apart from the prospective teachers of domestic science, however, the situation at De Kalb is practically the same as at Mount Pleasant, Mich.; that is, the seniors specializing in music, drawing, and manual training constitute only 8 per cent of the senior class, and in no one of these subjects is there a sufficient number of seniors to compose a class large enough so that the teaching of it would *not* be relatively expensive.

Finally the statistics from one of the largest normal schools in the country, namely, the California State Normal School, at Los Angeles, should be noted. Only graduates of four-year high schools are admitted to this school, and the annual number of graduates is over 500. Students may graduate in December, March, and June, but to simplify the calculations from the data given in the announcement for 1914-15, the number of candidates for graduation in June, 1914, will be used, as given below:

Candidates for graduation in general course, including kindergartners.....	325
Candidates for graduation in special courses:	
In the department of art.....	23
In the department of home economics.....	40
In the department of manual arts.....	16
In the department of music.....	13
	<hr/> 92
Total candidates for graduation in June, 1914.....	417

In this large institution the candidates for graduation in art, the manual arts, and music constitute 12 per cent of the total candidates for graduation, a slightly larger proportion than was found in the cases of the Michigan and Illinois normal schools. Moreover, the number of graduates specializing in each of these subjects is sufficient to make a large enough class to be taught at the average expense of normal-school instruction.

**Three methods of organizing special training courses within a State.**—Methods of meeting the definite but restricted needs for trained special teachers vary with different States. The following types of provision may be distinguished:

1. The establishment of separate normal schools for the training of special teachers. The Boston Normal Art School and the State Manual Training Normal School at Pittsburg, Kans., are examples.

2. The development of adequate facilities for the training of special teachers in certain of the existing general normal schools of a State, with definite *restriction* of the development of similar facilities in other schools of the same State. The arrangements in the States of New York and Michigan are examples.

3. The permitting of any normal school in the State to develop facilities for any special courses that it cares to give. Many of the States present examples of this arrangement.

*Concentration of facilities versus duplication.*—In general, the economical *concentration* of adequate facilities for training special teachers is likely to prevail where there is centralized expert control of the normal schools of a State, based on an objective study of the needs of the State. The development of uneconomical, inadequate facilities in a number of schools of the same State is likely to prevail where each State school is free to multiply courses according to its own ambitions. We shall take up the discussion of each of the three types of organization with typical examples.

#### 1. SEPARATE NORMAL SCHOOLS FOR SPECIAL TEACHERS.

**Massachusetts Normal Art School earliest example.**—The most striking example of the establishment of a separate State normal school for the training of special teachers is the organization of the Massachusetts Normal Art School in Boston. An excellent account of the history, work, and possibilities of this school is given by David Snedden, commissioner of education, in the seventy-seventh annual report of the Massachusetts Board of Education (January, 1914). The opening paragraph reads as follows:

The Massachusetts Normal Art School, unlike the other State normal schools, trains teachers only for special departments, namely, drawing and manual training. It was organized in 1873, primarily because there existed no other agency in the State capable of training special teachers of these subjects; and secondarily to make possible the artistic training of artisans. Since 1873 the school has grown steadily, until at present its attendance is in the neighborhood of 325. It has gradually added in a variety of ways to its original functions, especially in the direction of offering courses in industrial and applied arts for prospective industrial workers (page 45).

*Organized to meet definite industrial needs in Massachusetts.*—The definite relation of the organization of this school to the economic needs of the State as these were reflected in the introduction of a new subject into the elementary curriculum is shown in the following quotation:

About 1870, various persons in Massachusetts, a number of them identified with the larger commercial enterprises of the State, became convinced that if local industries were to be further developed, more attention must be given to instruction in drawing. In 1869, a petition was presented to the legislature, asking that provision be made by State law for instruction in industrial art. The petition contained this statement:

Every branch of manufacture in which the citizens of Massachusetts are engaged requires, in details of the processes connected with it, some knowledge of drawing and other arts of design on the part of skilled workmen engaged.

The legislature of 1870 made drawing a required study in the public schools of the Commonwealth, and also provided for the opening of evening industrial drawing schools. After a considerable campaign, provision was made for the establishment of the Normal Art School in 1873. From the discussion that took place at this time it was evident that several objects were in view on the part

of those who favored the founding of this school. First, it was essential that special teachers and supervisors of drawing be provided to make possible the teaching of drawing in the schools, as required by State law. Second, it was expected that young persons preparing for work in the trades should, in some cases in this school and in some cases in the evening drawing schools in the large cities, receive that special equipment in drawing and other phases of industrial art which the industries of the Commonwealth seemed to require (page 46).

The Massachusetts Normal Art School was the first institution of its kind in the country. Since 1873 it has graduated a large number of students, many of whom have figured prominently in the artistic and educational activities of the Commonwealth. Some of its distinguished graduates have become heads of similar or larger institutions in other States, as New York, New Jersey, Pennsylvania, Ohio, and Illinois. Some of these schools now greatly surpass the parent institution in Massachusetts in extent and in variety of work carried on (page 47).

The most important function of the Normal Art School, namely, to train special teachers and supervisors of drawing for the public schools of the Commonwealth, is now well defined. During the 40 years of its history the school has graduated a large number of students who have followed teaching as a career. The results of their influence are apparent in all the public schools of Massachusetts. The course of study for prospective teachers is four years in length. It is probable that special courses, occupying an additional year, will soon be added, by means of which experienced teachers of drawing who wish to become supervisors of this subject in public school systems can obtain the required special equipment. The details of the program of instruction for the training of teachers and supervisors of drawing have been worked out and tested on the basis of experience. In selecting a new principal for the school the board has arranged that he should also serve the State as director of art education, so that the Normal Art School would have a direct relation to the supervision of drawing and of manual arts in the schools of the Commonwealth (page 50).

**State Manual Training Normal School of Kansas.**—A second example of a normal school established for the training of special teachers is the State Manual Training Normal School established at Pittsburg, Kans., in 1903. While this school makes very special provision for the training of teachers of technical subjects, it maintains at the same time the courses for general teachers found in most normal schools. The relative amount of energy consumed in these two lines of activity may be estimated from the following statistics concerning members of the faculty as outlined in the catalogue of the school for June, 1914:

*Faculty of the Kansas State Manual Training Normal School.*

Teachers of technical subjects related to manual training:

Of manual training.....	4	
Of home economics.....	4	
Of graphic and plastic art.....	5	
		13

Teachers of other special subjects in which certificates are given:

Commerce.....	2	
Agriculture.....	1	
		3

Teachers of other subjects generally found in normal schools (education, English, history, mathematics, science, physical education, music, languages).....	19
Critic teachers.....	4
President.....	1
Not stated.....	1
	6
<b>Total.....</b>	<b>41</b>

The number of graduates of the Kansas State Manual Training Normal School in June, 1914, is shown in the following table:

Courses.	Number of de- grees.	Per cent.	Life di- plo- mas.	Per cent.
Graduates of the technical courses related to manual training and leading to a bachelor's degree:				
Of the industrial arts course.....	5	9.8	23	10.8
Of the home economics course.....	21	41.1	57	26.9
Graduates of other special courses:				
Of the special language course.....			5	2.3
Of the commerce course.....			3	1.5
Of the agriculture course.....			3	1.5
Of the industrial physics course.....	4	8.0		
Of the drawing supervisor's course.....			2	.9
Graduates of the general course:				
Of the general course for the bachelor's degree.....	21	41.1	98	46.2
Of the kindergarten teacher's course.....			1	.4
Of the primary teacher's course.....			13	6.2
Of the grade teacher's course.....			7	3.3
<b>Total number of graduates.....</b>	<b>51</b>	<b>100.0</b>	<b>212</b>	<b>100.0</b>

*Provides also a large amount of general training.*—These data make it possible to calculate roughly the proportion of normal-school energy that goes into the lines implied in the name “Manual Training Normal School.” Using the number of teachers as the basis, we may say that 31 per cent of the teaching energy is devoted to technical subjects related to manual training. Using the number of graduates as the basis, though the issue is somewhat obscured by the different forms of graduates, we may say that only a minority of the graduates are prepared to teach technical subjects related to manual training. In contrast with this number a very appreciable part of the whole body of graduates go into general teaching.

*Excellent mechanic arts building and equipment.*—The thoroughness of the equipment for technical work in manual training and related lines in the Kansas State Manual Training Normal School is suggested by the accompanying picture of the Mechanic Arts Building, which cost \$62,000 to erect. Its equipment cost \$20,000. The work in wood, iron, clay, and in drawing is done in this building. Classes in domestic science and domestic art are housed in the general academic building, and there is a large separate power plant. These points are worth noting, since so-called manual training buildings are sometimes erected at normal schools, but are used extensively for general classroom purposes, administrative offices, etc. This is due to the



fact that it is easy to get money from a legislature for buildings for the "practical" arts; but there is seldom any special agency to see that the building is used exclusively for the purpose for which it was constructed.

**North Dakota State Normal and Industrial School.**—In North Dakota, in the Ellendale State Normal and Industrial School, we find another example of a normal school established especially to train manual-training teachers. Under the heading "Purpose and scope of the school," the catalogue for June, 1914, states that the school—

was established by legislative enactment in 1893, in accordance with a section of the State constitution providing for its creation. The revised law of 1907 relating to this school reads as follows (p. 10 of catalogue) :

That the institution located at Ellendale, Dickey County, N. Dak., be designated the State Normal and Industrial School, the object of such school being to provide instruction in a comprehensive way in wood and iron work and the various other branches of domestic economy as a coordinate branch of education, together with mathematics, drawing, and the other school studies, and to prepare teachers in the science of education and the art of teaching in the public schools with special reference to manual training.

The accompanying pictures show the Mechanic Arts Building and a class in farm engineering.

*Trains as many general teachers as special teachers.*—The extent to which the school trains teachers of the special type for which it was especially established, as compared with the extent to which it provides training for general teachers, may be seen from the following statistics of the senior class given in the catalogue for June, 1914:

Seniors in the special courses :

In the normal manual training and the mechanic arts courses.....	8
In the normal home economics and the home economics courses.....	8
Total special seniors.....	16
Seniors in the general normal course.....	20
Total number of seniors in above courses.....	36

Thus we see that only 44 per cent of these seniors are specializing in the subjects which were emphasized in the official statement of the purpose of the school.

**Exclusive manual training normal schools not justified.**—In each of the two special manual training normal schools that have been discussed (namely, the one at Pittsburg, Kans., and the one at Ellendale, N. Dak.), it has been seen that a large part of the teaching energy, perhaps the major part, goes into the training of general teachers. This fact might suggest that there is not sufficient demand within a single State for teachers of manual training and related subjects to justify the State in maintaining a separate specialized normal school to train such teachers.

*Normal and industrial schools train few industrial teachers.*—A few States maintain normal schools which have names similar to the

one at Ellendale, N. Dak., namely, "the State Normal and Industrial School." Some of these are for white students and several are for Negroes. In none of the schools for whites does the training of special industrial teachers play a very large part. Examples of such schools are those at Harrisonburg, Va., Ellendale, N. Dak., Aberdeen, S. Dak., and the "Winthrop Normal and Industrial College," in South Carolina. Statistics showing positions secured by graduates from the latter were given above on page 107. At Harrisonburg, Va., in June, 1913, the graduating class was divided as follows (catalogue, 1914):

Candidates for the general and the kindergarten diplomas.....	40
Candidates for the household arts diplomas.....	2
Candidates for the industrial arts diplomas.....	5

Similarly the senior class at Aberdeen, S. Dak., for 1913-14 was divided as follows (catalogue, 1914):

Seniors in the advanced general normal course.....	30
Seniors in the household arts course.....	5
Seniors in the industrial normal course.....	1

Thus we see that relatively few students of these schools complete the special courses for "industrial" teachers in the "State normal and industrial schools" for white students.

**State normal and industrial schools for negroes.**—Among the State normal and industrial schools for negroes are those at Frankfort, Ky.; Nashville, Tenn.; and Prairie View, Tex. Similar institutions are found in nearly all of the Southern States. Judging from the alumni lists, most of the graduates of these schools go into general teaching in elementary schools for colored children; but the industrial courses play a much larger part in the training of these graduates and of other students who do not graduate than is the case in the corresponding schools for whites. The amount of teaching energy devoted to industrial subjects in such an institution may be inferred from the following classification of members of the faculty at the Prairie View State Normal and Industrial College in Texas (catalogue 1913-14):

Teachers of special industrial subjects:

Industrial economics.....	1
Agriculture .....	4
Mechanics.....	2
Cooking .....	3
Sewing .....	3
Tailoring .....	1
Shoemaking .....	1
Plumbing .....	1
Carpentry .....	1
Blacksmithing .....	1
Broom and mattress making.....	1

Total teachers of special industrial subjects..... 19

Teachers of other general subjects commonly found in normal schools.... 15

These schools are reproducing on a small scale the excellent work for improving the Negroes that is carried on so extensively at Hampton and Tuskegee.

*Stout Institute, highly specialized and successful.*—Perhaps the most influential of the State normal schools which are organized especially to train teachers of special subjects is the Stout Institute, at Menominee, Wis. This school was organized in 1903.

For a long time it has ranked, with Pratt Institute, of Brooklyn, N. Y., and Bradley Polytechnic Institute, of Peoria, Ill., among the best schools for providing superior two-year courses for high-school graduates who are preparing to teach manual training and related subjects in public schools. Later Stout Institute was acquired by the State of Wisconsin and is now governed by a board of trustees, including as ex officio members the State superintendent of public instruction of Wisconsin, the secretary of the board of trustees, and the dean of the college of engineering of the University of Wisconsin. The board also includes three employers of labor and three skilled employees.

The highly specialized nature of the training offered at Stout Institute is suggested by the following statistics concerning its faculty (announcement, 1914-15):

*Distribution of teachers' time in Stout Institute.*

Teachers of woodwork.....	5½
Teachers of ironwork.....	2
Teacher of bricklaying.....	1
Teacher of plumbing and gas fitting.....	1
Teachers of printing and primary handwork.....	1½
Teachers of sewing, etc.....	6
Teachers of cooking.....	7
Teachers of home and social economics.....	2
Teachers of drawing, design, etc.....	5½
General teachers (education, science, English, physical education).....	7½
Critic teacher.....	1
Total .....	40

It is evident from the above table that the teaching energy of the faculty of Stout Institute is directed almost exclusively to the giving of specialized courses for training teachers of manual training, drawing, cooking, sewing, and trades. About 80 per cent of the teaching energy goes into these technical subjects. The same impression is gained from the following list of courses of instruction offered:

GENERAL COURSES.

Psychology and pedagogy.  
Observation and practice teaching.  
English.  
Physical training.

Applied science.  
Physiology and hygiene.  
General chemistry.  
Microbiology.

TECHNICAL COURSES.

Manual training department :

Organization of manual training.  
History and literature of manual training.  
Industrial economics.  
Elementary mechanical drawing.  
Projection drawing.  
Machine drafting.  
Elementary architectural drawing.  
Advanced architectural drawing.  
Manual training design.  
Freehand drawing.  
Elementary woodwork.  
Upper grade woodwork.  
Joinery.  
Pattern making.  
Elementary carpentry.  
Advanced carpentry.  
Millwork.  
Cabinet making.  
Elementary wood turning.  
Advanced wood turning.  
Elementary wood finishing.  
Advanced wood finishing.  
Saw filing.  
Elementary forging.  
Advanced forging.  
Elementary machine shopwork.  
Advanced machine shopwork.  
Millwrighting.  
Foundry practice.  
Cement work.  
Elementary bricklaying.

Manual training department — Continued.

Advanced bricklaying.  
Elementary plumbing.  
Advanced plumbing.  
Special shopwork.  
Primary handwork.  
Elementary printing.  
Advanced printing.

Home economics department :

Food study.  
Elementary cookery.  
Dietetics.  
Advanced cookery.  
Food chemistry.  
Chemistry of nutrition.  
Plain sewing.  
Model sewing.  
Dressmaking.  
Art needlework.  
Textiles.  
Trade dressmaking.

Home economics department — Continued.

Millinery.  
Drawing and art work.  
Mechanical drawing.  
Drawing and design.  
Interior decoration and furnishing.  
General organization and management.  
Emergencies and home nursing.  
Household management.

*Not merely a local Wisconsin institution.*—The Stout Institute should not be regarded as merely a local institution of the State in which it is located, as most State normal schools may be regarded. Its students come from many States, and the catalogue for 1914-15 states that its graduates are teaching or doing supervisory work in 27 States and in Canada.

2. SPECIAL COURSES AUTHORIZED IN CERTAIN SCHOOLS.

The second policy in organizing training for special teachers is to provide for the development of adequate facilities in certain of the existing general normal schools of a State, with definite restriction of the development of similar facilities in other schools of the same State. Inasmuch as a normal school that restricts itself to the training of general teachers for elementary schools needs for this purpose

teachers of music, drawing, and handwork, the necessary development of small departments for this purpose is permitted in all of the normal schools of the State.

**This policy favored in New Jersey.**—A general expression of this type of policy is found in the 1913 report of State Commissioner Kendall, of New Jersey. It reads as follows:

The State should utilize its normal schools for the special training of teachers for various kinds of special activities. The normal school at Montclair, for example, could train teachers for mentally defective children. The State board of education and the principal of the school are maturing plans for this purpose.

The State normal school at Newark might be utilized for the training of teachers for State-aided vocational schools and also for the training of teachers for manual training. The training of the former class of teachers should perhaps be mainly carried on in evening classes for men and women engaged during the day in the industries. Upon such men and women we must depend for teachers in these State-aided vocational schools.

The normal school at Trenton is already training teachers for domestic science and commercial branches, and the school which it is hoped will be established in the southern part of the State should have a course for the adequate training of teachers in agricultural activities.

The above is not so much the statement of a definite program as related to each particular school as it is the declaration of two principles: First, that the State, by means of its normal schools, should train, and train adequately, for the special activities in which the State needs teachers; and, second, that there should not be a duplication of training in two or more schools. Such duplication is not only wasteful, but liable to impair the quality of the instruction. Moreover, so many teachers might be trained in a given field that the demand for such teachers would be exceeded (pp. 134-135).

**Authorization of special courses in certain New York schools.**—The policy advocated by Commissioner Kendall is being carried out in New York and Michigan. In the bulletin of the New York State department of education of October 15, 1911, the latest issued dealing with normal schools), the following statement is found (p. 25):

#### SPECIAL NORMAL-TRAINING COURSES.

To provide normal training for teachers of special courses in the public schools special professional courses have been authorized in the State normal schools. It is not the policy of the State to give all special courses in each of the State normal schools, but to assign to each school the special work for which it is best adapted by reason of its location, organization, and equipment. Such special courses have been authorized as follows:

*Buffalo.*—Mechanical drawing; machine-shop practice; printing, pattern making; joinery and cabinet work; cookery; sewing and millinery.

*Cortland.*—Agriculture course.

*Fredonia.*—Music and drawing.

*Geneseo.*—Teacher-librarian's course.

*Oswego.*—Manual arts.

*Plattsburg.*—Commercial course.

*Potsdam.*—Music and drawing.

The graduates of these courses will receive a diploma which will be a license to teach in the public schools of the State the subject completed.

The detailed content of each of the special courses listed above is outlined by the State department of education.

The amount of teaching energy devoted to the organization of these special courses may be inferred from the data given below.

In the Buffalo normal school, which is designated as the one to develop vocational courses, the faculty contains for this purpose the following instructors:<sup>1</sup>

One man, principal of the vocational department.

One man, teacher of drawing and penmanship.

One woman, teacher of drawing.

Three women, teachers of domestic sciences and arts.

At Oswego, where special courses in manual arts are authorized, the faculty includes:<sup>2</sup>

One man for director of manual arts, criticism, drawing, and shop administration.

One man for woodworking, art metal work, molding.

One man for printing and supervision of printing and commercial lettering.

One-third of a man's time for "form and drawing methods."

One woman for domestic science.

One-third of a woman's time for "sewing, basketry, weaving."

At Plattsburg, which is especially authorized to give commercial courses, two teachers are employed for this purpose, but one of them is also principal of the high school. However, this faculty also includes two teachers of manual training, one of drawing, and one of domestic science and art—almost as large a staff in these lines for which it is not authorized to train special teachers as is found at Buffalo and Oswego.

**Michigan assignment of special courses to different schools.**—The Michigan plan for assigning to different normal schools the function of training special teachers for certain subjects is described in the report of the State board of education for 1912, as follows (p. 7):

A new plan for the training of teachers for special subjects has been formulated. As at present arranged, each of the normal schools maintains departments in the special subjects. Beginning with the fall of 1913, the State Normal College at Ypsilanti will prepare teachers in the *household arts*; the Central Michigan Normal School, at Mount Pleasant, will prepare teachers of *agriculture*; and the Western State Normal School, at Kalamazoo, will train teachers in the *manual arts and trades*. The normal school so designated for each subject is the only one empowered to issue diplomas or teachers' certificates in the given subject. This will not curtail the usefulness of the departments already organized in other than the given subject, since it will continue to be desirable to provide all the special subjects as electives. The new ruling will insure, by means of this concentration of effort, greater uniformity and thorough technical training for the special teachers.

The faculty of the Ypsilanti normal school, as given in the year-book for 1913-14, contains about 85 teachers, excluding the faculty of

<sup>1</sup> Circular of information, 1914-15.

<sup>2</sup> Catalogue for 1914-15.

the training school. This includes about 20 professors, 5 associate professors, 10 assistant professors, 20 instructors, and 30 assistants. In the department of household arts, which is assigned to Ypsilanti as a special department, there are five teachers. One of these is listed as head of the department (rank not stated), 2 are instructors, and 2 assistants. This number of teachers is sufficient to provide strong courses in home economics and household arts in an institution where there are strong related departments in the natural sciences and the fine arts, as is the case at Ypsilanti. As regards material equipment, the yearbook states that in the near future a household-arts building will be erected. When this occurs, the number of instructors in this special department will probably be increased, since so large an institution would probably develop an enormous registration in the household-arts department.

### 3. DUPLICATION OF SPECIAL COURSES IN SEVERAL SCHOOLS.

The third type of policy in the organization of training for special teachers within a given State is to permit any normal school in the State to develop facilities for any special courses that it cares to give. This is the policy followed in most States, and, under it, most normal schools are likely to develop special two-year courses for teachers of music, drawing and manual training, and home economics.

**Sometimes done to use time of special teachers.**—In the large schools where two or more college teachers are employed in any one of these subjects, a fairly adequate course can be given. In the smaller schools where only one college teacher of each subject is employed, the special two-year course which he can offer is not likely to be strong. Unless such a special teacher is also employed in the practice school or the normal high-school, however, he is likely to have to offer a course for special teachers of his subject *in order to employ his time*; for in a small normal school the amount of instruction required in music, drawing, manual training, and home economics, for students in the general courses, is very slight. The general students seldom take more than two periods a week of music through two years, or two periods of drawing through one year, or two periods of manual training or home economics through part of one year. Yet so extensive is the discussion of these subjects that every school feels it *must* have a special teacher of each. This sometimes results in a rather anomalous situation in a small normal school, where there will be four special teachers for these special subjects, and only as many more teachers for the general subjects of education, English, history, sciences, and mathematics, which necessarily consume much more teaching energy in the preparation of general elementary teachers. For example, according to the 1914 catalogue of one of the New Eng-

land normal schools, there are on the faculty four teachers of the general subjects (pedagogy, science, English, and sociology) and four teachers of the special subjects, one teacher each for art, domestic arts, music, and manual training. No doubt these teachers also teach the children in the practice school; yet they find time to offer "a three years' curriculum to prepare for teaching and supervising music, drawing, and domestic arts."

**Specifically authorized in some States: Minnesota.**—In some States each normal school is independent of any central control in organizing such special courses as it pleases to give. In other States, however, the State normal school board may specifically authorize all of the normal schools to offer all of the specialized courses. For example, in the case of Minnesota, we find the following action recorded in report of the State normal school board for 1911-12:<sup>1</sup>

The normal schools have responded to the demand, which has become very evident in the State, for teachers of specialized training. Upon the recommendations of the presidents (of the normal schools), the normal-school board has authorized the establishment of special courses for the training of supervisors of music and drawing, of special primary teachers, and teachers in home economics and manual training.

The normal schools of Minnesota are large enough, on the average, so that slightly more than the time of one instructor is employed in the four standard specialized subjects, namely, music, drawing, manual training, and household arts or home economics. Consequently, instead of only four teachers for these subjects combined, from five to seven are employed.

**Examples of duplication in large normal schools of Missouri.**—Among the normal schools maintaining larger special departments under the third type of policy which we are discussing are those of Missouri. At Warrensburg the catalogue distinguishes the academic and the special or technical departments as follows:

ACADEMIC DEPARTMENT.

Agriculture, physiography, and geography.	English language and literature.
Biology.	French and German.
Chemistry, physiology, and hygiene.	History.
Economics.	Latin and Greek.
Education.	Mathematics.
	Physics.
	Training school.

DEPARTMENT OF TECHNICAL SUBJECTS.

Commerce.	Manual training.
Drawing.	Music.
Household arts.	Physical education.

<sup>1</sup> Seventeenth Bien. Rept. of Supt. of Pub. Instr. of Minnesota, p. 95.



The number of teachers at Warrensburg, excluding those in the practice school, is about 40. In this number are included 2 teachers of drawing, 2 of manual training, 2 of home economics, and 4 of music. (Bulletin for 1914-15.)

The number of teachers at the Kirksville (Mo.) Normal School is also about 40 (excluding teachers in the practice school and "teaching scholars"). In this number are included 1 full-time teacher and 1 part-time teacher of manual arts, 2 of drawing, etc., 2 of home economics, and 3 of music. (Bulletin, 1914.)

Somewhat similar data are found in the faculty of the normal school at Cape Girardeau, Mo. Thus each of three of the large normal schools of one State devotes approximately one-fourth of its teaching energy to these four special subjects. In the Warrensburg and Cape Girardeau catalogues there are outlined full three-year courses for high-school graduates who plan to prepare to teach each of these special subjects. The number of graduates of each of these courses is not indicated, however.

**Second policy better than first or third.**—Of the three types of policies in organizing courses for the training of special teachers in the normal schools of a State, it should be said that the first policy, namely, to establish a separate normal school for this purpose is probably not necessary in any State. This is shown by the fact that some schools that have been established in this way have become largely schools for training general teachers. The fact that all of the new special and vocational teachers in a State may constitute less than 10 per cent of the total number of new teachers shows that most States can ill afford to establish a special normal school for some part or all of this 10 per cent.

The third type of policy, namely, permitting any normal school in the State to establish any special courses, is not bad where the normal schools concerned are so large that two or more teachers are employed in the special subject in which special training is to be given. In the smaller schools, however, it is likely to be inadequate, owing to the lack of sufficient equipment and teaching staff. In any case, it is likely to prove expensive, through the unnecessary duplication of equipment and teaching staff in the several normal schools of the State. One of the most favorite bases for requests by normal school presidents to the legislature for additional funds is the plea for special buildings and equipment for these special courses. Yet the statistics show that relatively few graduates are produced even when the faculties are provided.

Obviously, in most States, the best policy is the second one, namely, to develop adequate facilities for the training of teachers of a given special subject in one of the regular normal schools of the State. This avoids the waste entailed in establishing a special school, which

prevails under the first policy, and the waste from duplication under the third policy. At the same time it may assure as thorough training as does the first policy, and avoid the inadequate training which may result from the third policy.

#### SAMPLE COURSES OF STUDY FOR SPECIAL TEACHERS.

The principal subjects in which normal schools provide training courses for special teachers are music, drawing, manual training, home economics and household arts, and commercial subjects. Practically all normal schools have courses for general teachers in the first four subjects mentioned, and most of them announce training courses for special teachers in each subject. The organization of training courses for special teachers of commercial subjects is not so common, but the courses are found in a number of normal schools.

**Difficult to analyze and classify courses.**—To attempt to classify and describe the special courses provided in all these subjects would be a difficult task and would not be worth while from the standpoint of this bulletin. Certain general characteristics may be noted, however, and a few sample courses in manual training, home economics, and commercial subjects presented.

*Two opposite types of curricula.* 1. *Much general work included.*—In general, the courses organized for the training of special teachers fall into two main types. The first type of course is constructed by slightly modifying the regular course for general teachers. This modification usually consists in permitting a prospective special teacher to elect about one-fourth of his work in the special subject in which he is interested. The remainder of his course will consist of the usual courses in education, psychology, geography, mathematics, physical training, etc., taken by the students in the general course. This type of course is common in the normal schools where there is only one teacher for the special subject in question. Needless to say, the graduates of such special courses have had very meager training for their specialties.

A modification of the above type of course is to provide an additional year of more or less special training for students who have completed one of the regular courses for general teachers. This additional year, however, often contains further work in general subjects, such as the history of education or sociology, and may not provide any more thorough special training than the shorter course described above.

2. *Two or three years of highly specialized work.*—The opposite type of course consists of two or three years of work devoted almost entirely to the special subject that the student is preparing to teach,

with such courses in other subjects as are definitely and specifically helpful in the special subject. A few hours in education and practice teaching are usually included in such a program. When one becomes familiar with the large amount of special and related subject matter that it is necessary to master in order to be well prepared to teach any one of the special subjects under consideration, there remains no doubt that these more highly specialized courses are necessary in order to give adequate training.

*Sample manual training course, Oxford, Ohio.*—As a sample manual training course, there is outlined below the work required in the two-year course for high-school graduates at the State Normal School at Oxford, Ohio. There are about 5 teachers to give the special instruction included in this course, and there were 6 graduates from it in 1915. It is of the last general type described above, namely, almost entirely special in content.

*Course for special teachers of manual arts.*

FIRST YEAR.		SECOND YEAR.	
	Hours.		Hours.
Object drawing and sketching.....	2	Advanced mechanical drawing.....	4
Elementary mechanical drawing....	4	Constructive design.....	2
Elementary design .....	2	Modern educational tendencies....	3
Psychology, principles of teaching..	6	Organization and special method of	
Rhetoric and composition.....	6	the manual arts.....	4
Handwork in wood.....	6	Cabinetmaking.....	6
Sanitation and health:		Trigonometry; analytics; shop	
a. Hygiene; first aid.....	1	mathematics .....	6
b. Physical education.....	2	School organization and manage-	
Elective.....	3	ment.....	3
		Teaching manual arts.....	4
Credits required for first year....		Credits required second year.....	
	32		32

All students are strongly urged to complete the full four-year course (see p. 117) and receive the degree of bachelor of science in education, thereby placing themselves in line for the better teaching positions. However, those who must teach before completing the four-year course may take the course above and receive a State diploma and State teaching certificate. All electives in the course must be manual arts subjects.

*Sample home economics courses, Valley City, N. Dak.*—The course in home economics (domestic science) in the State Normal School at Valley City, N. Dak., is a good example of a two-year course for high-school graduates which contains a large amount of general work. There were either three or four teachers in the special department (three in the faculty list, but four in the departmental description) and 23 graduates from the course in June, 1914.<sup>1</sup> The course of study is outlined below.

<sup>1</sup> Catalogue, 1914, p. 21.

*Domestic science course at Valley, City, N. Dak.*

FIRST YEAR.

Fall.	Winter.	Spring.
Psychology. General methods and penmanship methods (each 6 weeks). Physiology. Chemistry. Domestic science.	Psychology. Reading methods and singing methods (each 6 weeks). Arithmetic. Chemistry. Domestic science.	Psychology. History. Household chemistry. Domestic science. Home nursing and textiles (each 6 weeks).

SECOND YEAR.

Fall.	Winter.	Spring.
History of education. Grammar. Teaching. Economic biology. Domestic science.	Philosophy of education. Geography. Teaching. Economic biology. Domestic science.	School management. Teaching. Economic biology. Domestic science. Millinery and art needle-work.

*Los Angeles, Cal.*—A much more specialized course in home economics is the one in the State normal school at Los Angeles, Cal. The department of home economics in this institution had 2 teachers in 1914-15, with 2 student assistants, and a third teacher for part of the year. The number of candidates for graduation in the home economics course in June, 1914, numbered 40. (Announcement, 1914-15.) The department offered a two-year course for high-school graduates and a one-year course for normal-school graduates. Only the two-year course is outlined below:

*Home economics course at Los Angeles, Cal.*

First year.	Units.	Second year.	Units.
<i>First term.</i>		<i>First term.</i>	
Psychology.....	5	Education.....	5
Cookery.....	3	Teaching and observation.....	4
Sewing.....	3	Cookery.....	3
Art.....	3	Millinery.....	2
Textiles.....	4	Home economics education.....	4
Total.....	18	Total.....	18
<i>Second term.</i>		<i>Second term.</i>	
Cookery.....	3	Teaching and observation.....	6
Sewing.....	3	Cookery.....	2
Art.....	3	Dressmaking.....	3
Food production and manufacture.....	2	Supplemental.....	7
Home management.....	2	Total.....	18
Supplemental.....	5		
Total.....	18		
<i>Third term.</i>		<i>Third term.</i>	
Psychology.....	5	Teaching and observation.....	4
Cookery.....	3	Dietetics.....	3
Sewing.....	3	House furnishing and decoration.....	2
Food chemistry.....	3	History of home economics.....	2
Costume design.....	2	Bacteriology.....	2
Nursing.....	2	Supplemental.....	5
Total.....	18	Total.....	18

*Sample course for commercial teachers: Salem, Mass.*—As a final sample of courses for the training of special teachers, we shall present a course for prospective teachers of commercial subjects, which is offered in the State normal school at Salem, Mass. In this school the time of about four teachers is devoted to instruction in commercial subjects, and there were 15 graduates from the department in June, 1913. The fundamental course covers three years of work for high-school graduates. In a note in the catalogue for 1913-14 it is stated that the State board of education had under consideration the lengthening of the course to four years, which would include one year of business experience under the supervision of the school. The three-year course is largely specialized, but includes a certain amount of work in closely related subjects. It is outlined below.<sup>1</sup>

*Course for commercial teachers at Salem, Mass.*

First year.	Hours per week.	Second year.	Hours per week.	Third year.	Hours per week.
English.....	2	English.....	2	Literature.....	4
Shorthand.....	4	Commercial correspondence.....	1	Shorthand.....	3
Typewriting.....	5	Shorthand.....	3	Typewriting.....	3
General history.....	2	Typewriting.....	3	Commercial law.....	2
		American history and civics.....	3	History of commerce, economics, half year each.....	3
Physiography.....	2	Commercial geography..	2	Industrial geography...	2
Industrial physics and chemistry.....	2	Commercial arithmetic..	2		
Bookkeeping.....	2	Bookkeeping.....	3	Bookkeeping.....	3
Penmanship.....	1	Penmanship.....	1	Penmanship.....	1
Physiology.....	1	Psychology.....	3	Pedagogy.....	2
Music.....	1	Music.....	1	Music.....	1
Total.....	23	Total.....	24	Total.....	24

Observation and practice teaching, 9 weeks.

A carefully elaborated announcement of normal-school courses for the training of commercial teachers is the third annual commercial catalogue of the State normal school at Whitewater, Wis. In 1913 the board of regents established a special department at this school for training commercial teachers, and very thoroughly organized courses are offered.

*Courses for teachers of trades.*—Special courses for teachers of trades and related vocational courses are not discussed here, because the normal schools have not generally undertaken the task of training such teachers and are probably not fitted to do so in most cases. According to Commissioner Snedden, of Massachusetts, the best plan for training such teachers is to organize evening courses in the State-aided industrial schools in certain of the larger cities. These courses would give the necessary general and professional training to intelligent skilled workmen who are engaged during the day in the trade. After completing the evening course they would be prepared for

<sup>1</sup> Catalogue, 1913-14, p. 39.

teaching. Graduation from an industrial school and experience in the trade should precede the professional training. For further discussion, see the annual report of the Massachusetts Board of Education for 1912-13, pages 62-68.

Of the existing State normal schools, Stout Institute in Wisconsin is the one that is most adequately equipped to train teachers of trades. Tuskegee Institute, in Alabama, receives a small amount of State aid and to that extent may be considered a State school. Needless to state, it provides the most thorough and efficient courses for training teachers of trades, many of its graduates being engaged in similar smaller schools for negroes. Likewise, Hampton Institute in Virginia provides excellent training for teachers of trades. If day schools for this purpose are to be established for white teachers in the North, they might profit by a study of the methods pursued at Tuskegee and Hampton.

*Courses for special teachers of agriculture.*—A few normal schools maintain well-organized special courses for teachers of agriculture. A good example is the three-year course for high-school graduates in the State Normal School at Cape Girardeau, Mo. The department of agriculture in this school employs three men as teachers. Hence, it is well-staffed to give the special courses to prepare teachers of this subject in high schools. The three-year course is of the highly specialized type. It is outlined below.

*Course for special teachers of agriculture at Cape Girardeau, Mo.*

FIRST YEAR.

Fall term.	Hours.	Winter term.	Hours.	Spring term.	Hours.
Chemistry.....	4	Chemistry.....	4	Agricultural chemistry..	4
Live stock.....	4	Live stock.....	3	Dairying.....	4
Manual training.....	1½	Manual training.....	1½	Manual training.....	1½
Education.....	3	Education.....	3	Education.....	4
Forage crops.....	3	Field crops.....	4	Cotton.....	4
	15½		15½		17½

SECOND YEAR.

Plant physiology or zoology.....	4	Morphology or zoology..	4	Plant ecology or zoology..	4
Physical practice.....	1½	Physical practice.....	1½	Physical practice.....	1½
Soils.....	4	Horticulture.....	3	Farm management.....	3
Education.....	3	Education.....	3	Education.....	3
Do.....	3	Do.....	3	Do.....	3
Forge.....	1½	Forge.....	1½	Forge.....	1½
	16		16		16

THIRD YEAR.

Agricultural physics.....	4	Agricultural physics....	4	Agricultural physics.....	4
Rural economics.....	3	Feeding.....	2	Poultry.....	2
Economic entomology.....	4	Principles of breeding...	4	Bacteriology.....	4
Education.....	4	Education.....	4	Farm accounts.....	2
	15	Do.....	3	Education, elective.....	3
			17	Education.....	3
					18

## Chapter XIV.

### PROGRAM FOR DEVELOPMENT OF NORMAL-SCHOOL STANDARDS.

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**Reiteration of the demand for standardization.**—All the studies reported in the preceding chapters of this monograph make it clear that there is great need of a movement to standardize normal schools. Again it may be said, as in an earlier paragraph, that this demand for standardization is not to be confused with the demand that all normal schools be made alike. The organizations and entrance requirements of various normal schools may vary in accordance with the local demands and spheres of operation of the different institutions. In each case, however, the characteristics of the school should be defined. The student body will then find that other higher institutions can deal equitably with their claims; the legislature will know more definitely the purposes for which it is appropriating funds; superintendents throughout the State will know more fully what kind of products they are to look for; and the community will understand and respect the normal school more fully than ever in the past.

**Standardization should be from within.**—The question arises at once, Who is to do the work? Outside agencies are not likely to succeed, because wherever these agencies criticize an institution they stir up antagonisms rather than bring about reforms. Furthermore, if outside agencies compel reform through the arousal of public sentiment or through legislative action, there is likely to be a half-hearted or even unfriendly attitude on the part of normal-school faculties. Even a State superintendent or commissioner finds himself unable to change normal schools as a result of his investigations without a long struggle, during which he has to bring the officers of the normal schools to take his point of view.

*This is equivalent to the demand that in all respects normal schools become scientific.*—There can be no question whatever that normal schools ought to standardize themselves. These institutions would gain many indirect advantages, as well as direct advantages, from an effort to understand and define themselves. The normal school ought to be a center of vigorous study of all kinds of educational

institutions. Teachers who are going out into rural schools ought to learn during their normal courses to understand rural schools. Teachers who are going into urban schools should have these institutions clearly defined during their period of training. Teachers in service ought to be given courses in normal schools which will improve them in professional equipment. This task of defining other institutions will be most intelligently undertaken by that normal faculty which has made a serious effort to understand and define their own work. When an officer of any educational institution begins to study his own functions, he develops an attitude and a method which carry him out to deal with all the problems of all educational institutions. There is nothing that will cultivate in normal-school teachers and presidents the attitude of scientific study of education more quickly or more completely than the study of the functions of their own institution.

The indirect advantages above referred to would furnish sufficient justification for the urgent plea that normal schools study their own functions. The direct advantages need hardly be enumerated again in the concluding chapter of this study. It remains only to outline the methods which may be followed.

**Reports on organization and operations needed.**—It is suggested that normal schools add to their publications a president's report. This report could be made a part of the annual catalogue, or it could be published separately, after the manner of most university presidents' reports. In some cases it might be desirable for the presidents of the normal schools in a given State to unite and issue a single joint report.

**Characteristics of the student body.**—This president's report should give full information about the student body. A table should be given reporting explicitly the amount of training of each student at the time of his or her admission to the normal school. There should be explanatory statements indicating how these facts are ascertained at the time of admission, how far irregularities are tolerated, and how these irregularities are administered. In short, the whole problem of admissions should be exposed to the light of unrelenting publicity. There can be very little doubt that one of the most serious difficulties in transferring students from normal schools to colleges or universities arises directly out of the irregularity of admissions. It is not here argued that admission requirements should be of one sort or the other, but it is argued that they should be clearly defined.

*Geographical studies should emphasize academic matters.*—Further information about the student body which is valuable, although not so valuable as that relating to admissions, is the information regarding geographical distribution. This is important as showing the



range of influence of the institution. This study of geographical distribution can be made academically the more productive if a study is made of the high schools and other institutions with which the normal school comes into contact. Thus, if a normal school draws its students from a region liberally supplied with standard high schools, its attitude toward secondary courses within the walls of the normal school should be very different from that of an institution drawing its students from a region in which there are no standard high schools. The whole problem of standardizing high schools is thus seen to be one with which the normal schools should concern themselves. Up to this time normal schools have been satisfied to leave the high schools to the supervision of colleges. In no less degree is it important that normal schools should study neighboring colleges. The time is rapidly passing when communities will support rival institutions of higher education. Economy dictates that there be clearness of definition in dealing with colleges. It is not surprising that up to this time normal schools have been out of contact with colleges, for the normal schools have been different in organization and support from the colleges. In recent years, however, the differentiating characteristics have been more and more eclipsed by those common purposes and modes of operation which have grown up in all higher institutions. Normal schools in some quarters are demanding admission to organizations to which they have not up to this time been admitted. The normal schools undoubtedly have a fair case, but they can be fully recognized only when they define themselves. Like all late comers, they will have to make their case; no one is going to do the work for them. It is urgently recommended, accordingly, that a geographical study be made, emphasizing the academic relations which the geographical surroundings impose on the school.

Other tables showing the ages, sex, and rate of progress through the normal-school classes would be most illuminating.

Studies of faculty should be detailed and explicit.—A second general line of information which should be supplied relates to the faculty. The faculty should be described in detail with reference to its training, experience, present activities, and literary or scientific productivity. In earlier chapters comment has been made on the relatively small number of faculty members with academic degrees, when normal schools are contrasted with universities and colleges. There are doubtless other compensating facts in many cases, but at present these facts are inaccessible. Furthermore, there is a widespread skepticism on the part of colleges and universities with regard to the qualifications of normal faculties. Normal schools can not afford to ignore this skepticism or remain silent with regard to the requirements that are set up when new members of the faculties are

being chosen. The facts should be brought out. Either each member of the faculty should be fully described or tables should be presented showing training and experience.

*What does the faculty do besides teaching?*—Productivity is one of the surest signs of intellectual vitality and strength. This productivity takes the form at times of scientific or literary output. At other times productivity means work on committees or lectures in extension courses or at teachers' meetings. There is on the part of many practical school people a fine scorn for research, it being held by them to be a mark of undue absorption in abstractions when a man carries on investigations. The answer to those who criticize research is that research is at present one of the best-defined evidences of intellectual vigor. Doubtless there is great intellectual vigor exhibited in other ways. It is legitimate to ask that the normal school bring out this fact in defining the activities of its faculty. If the best members of each normal school faculty could be defined in such a way that the educational profession at large could know what activities are legitimate and demanded, there would perhaps arise a new professional class superior to the research professor now so eagerly sought in higher institutions of learning. In the meantime one notes that the undefined class of normal-school teachers does not produce so much useful general intellectual material as ought to be expected. One would naturally expect textbooks and courses of study and new methods and carefully evaluated descriptions of school work issuing from normal schools. The fact is that very little material of this type comes from such sources. Furthermore, what does come is not clearly exhibited, so as to become a professional ideal. It is recommended that lists of outside activities be published.

*Studies of faculty activities will lead to better conditions for productive work.*—It was pointed out in an earlier chapter that the teaching programs of members of normal-school faculties are longer than the programs of faculties in other higher institutions. The policy of each normal school in this matter of hours of work should be clearly set forth. The community has of late been much interested in criticisms passed upon higher institutions because of the supposed delinquency of university professors. There can be no doubt that the normal school ought as a public institution to concern itself in this problem of defining the duties of an academic servant of the community. The failure of the public and of higher institutions to define clearly the legitimate demands in this matter affects the intellectual life of all grades of schools. No one knows how to frame demands which may be properly imposed on faculty members. Often a normal-school president does not know how much professional study goes with any of the positions to which he appoints. Members of

the faculty have no adequate professional standards. In public schools attention is being given to such matters in rapidly increasing degree. Normal schools should assume leadership.

The course of study more in need of standardization than any other aspect of normal-school organization.—The third general problem which should be taken up in the report is the problem of the course of study. For purposes of this discussion a sharp distinction may be made between the courses in education and the other courses which deal with the subject matter to be taught in schools. The education courses in American normal schools have traditionally consisted of the history of education and a course or series of courses in psychology, with some courses possibly in general methods. It is the general consensus of opinion in most school systems that the normal-school work given in the history of education is very barren of results. Hardly less common are the criticisms which are made of the kinds of psychology usually taught. It would seem in the presence of these criticisms that it is altogether desirable that the various normal schools describe to each other clearly what they are undertaking in their courses in education. The name of the textbook used is very frequently helpful in determining what has been accomplished. The American Psychological Association, through one of its committees, made an elaborate report some years ago showing what is undertaken in psychology in normal schools. There can be no doubt at all that the normal schools are very vitally interested in a definition of the subject matter of these courses, and yet it is quite impossible to gather from any of the reports that are at hand any clear statement of what is undertaken.

*New courses in education needed.*—It is probably true that the courses in education should be of a somewhat different type, and there is a large demand at the present moment for the drafting by experienced normal-school teachers of outlines which may be used in training immature students. Most of these students fresh from the high school do not realize at all the problems that are to confront the teacher. They should probably be given an introductory course in which educational problems and methods are defined. There should be a very great emphasis upon the empirical material which is now at hand in superintendents' reports and in the special studies which have been made of such matters as retardation and elimination. Problems of industrial education, the problems of the modification of the course of study, are all vital problems which the teacher ought to understand. And yet, the ordinary normal school gives very little attention to these great reform movements which are going forward in the schools, and the professional courses deal with the remoter periods of the history of education and with the reformers that are so far back in time and in spirit that the normal

school student has no contact through these remote studies with the community and the classroom problems with which he or she will come in contact immediately on graduation. Whether psychology shall be taught as a separate subject or in the modified form as an examination of the mental processes which appear in school children during school processes can, of course, be discussed as an academic issue, or it can be discussed as a very vital problem of the course of study. A comparative statement of what is undertaken now in various normal schools would be very helpful in bringing about a rapid modification and an enlargement of this type of work.

*Subject-matter courses should be organized so as to stimulate progressive thinking in mature students.*—Even more chaotic conditions are found in the subject-matter courses in arithmetic and grammar and geography. There are some normal schools in which the subject is frankly reviewed, on the theory that the student has forgotten since his elementary course everything which he knew about the subject matter itself. In other normal schools there is relatively very little review, or such reviewing as is undertaken is recommended to the student as the subject of private study. In these normal schools it is the method which is for the most part discussed. Sometimes this method consists in the exploitation of some particular scheme of presentation which is the hobby of the normal-school teachers. In other cases the discussion of method is on a somewhat broader basis, and a comparative study is made of the different methods of presenting the different distributions of time in different school systems, etc. Here again there ought to be a full discussion of principles. Each year a report from the normal school ought to be made of the fundamental principles which are recognized in organizing these courses in subject matter. It is perfectly evident that a course in arithmetic is not a suitable subject on which to exercise the growing intelligence of a student who has graduated from high school. He ought presumably to have a very large part of the equipment that is necessary for the course in arithmetic. On the other hand, there can be no doubt at all that a study of arithmetic can be formulated in such a way as to give the student some knowledge of the principles of number as well as an experience that will be of very great value to him in his teaching and the organization of this material. We have no adequate series of textbooks dealing with this problem. The ingenuity of normal-school teachers should be turned in the direction of formulating this material, and one of the most stimulating methods of turning attention in this direction would be a discussion by able leaders in normal-school education of the problems and methods of this type of course.

*The problem of "culture" courses or "general" courses not solved.*—Finally, in dealing with the normal-school course of study

the question always arises, How much academic matter should be introduced? It has been indicated in an earlier report that some normal schools give a good deal of academic matter. Courses in Latin are not uncommon in these normal schools, even when it is not expected that the students who take the courses will ever teach the subject. The relation of this academic material to the problem of the training of secondary-school teachers is also an important question which certainly in many normal schools needs very much more complete discussion than it has at the present time. There should be a report of the distinctions between academic courses and professional courses. When the North Central Association of Colleges and Secondary Schools asked the normal schools reporting to it to define clearly their courses, distinguishing between those that were academic in character and those that were professional, a very unsatisfactory set of replies was received. Evidently the distinction had never been drawn in the minds of some of the normal-school presidents who made the reports to the association. This distinction should be made the subject of discussion and definition, so that ultimately it will be perfectly clear what is needed for the professional and what is needed for the academic training of students.

*Practice teaching as a central factor in the course of study.*—Great emphasis was laid in an earlier chapter on the problem of practice teaching and its organization in the practice school. What the laboratory is to the course in science, what the shop is to the course in engineering, the practice school is to the normal school. And yet it is very difficult indeed from the reports of many normal schools to extract satisfactory information with regard to the actual conduct of practice work. In an article entitled *Practice Teaching in Model Schools*, published by Mr. E. E. Lewis, of the State Normal School of Charleston, Ill., in the *Elementary School Teacher* of May, 1913 (pp. 434-444), it is brought out clearly that there is the widest divergence among the model schools connected with normal schools throughout the country. For example, Mr. Lewis makes one summary, as follows, on page 438 of the *Elementary School Teacher*:

To summarize, 53 per cent of the State normal schools replying require the equivalent of three terms, or one full year, of practice teaching; 34 per cent, the equivalent of two terms; 8 per cent, the equivalent of one term; and 5 per cent, less than one term. There are possibly two institutions which require more than one year of practice teaching. The median institution requires three terms or one year.

Mr. Lewis also goes further in his article to show that the distribution of this practice teaching with reference to the methods courses is very different in different institutions: "The two prevailing tendencies are, first, to have practice teaching taken simultaneously with methods, and, second, to have practice teaching follow immediately

the course in methods. The second plan is more common." Further details of the article need not be repeated here. Enough to say the practices of different normal schools differ widely, as indicated also in the earlier chapters of this report. Why should there not be in accessible form for every normal school a definition of its laboratory and of the way in which it requires students to attend the exercises of this laboratory? Furthermore, a definition of the policy of the institution and its relation to schools would be of very great value. It is noted in an earlier chapter that some schools do give a definition of this sort, but it is very desirable that all the normal schools should make a clear statement of their relations to public institutions with regard to their practice work.

Especially has it been shown in this report that there should be clear and explicit tables setting forth the number of children accessible for practice work and the number of practice teachers who are supervised by a single critic teacher or normal instructor. There should also be a clear and explicit statement of the way in which this supervisory work is related to the other engagements of the normal-school teacher. If critic work is conjoined with instruction in the subject matter given in the normal school, this should be set forth in such a way that the policy of the school will be perfectly clear. In short, a definite statistical statement, together with a descriptive justification of the practices of the school, should be made a part of the regular report of each normal school, and it is recommended that this material be worked out in such fashion that a general comparison shall easily be possible.

*Student's program is closely related to the type of work which he can do.*—There is another body of information with regard to the administration of the course of study which should be brought out in these normal-school reports. A statement should be made of the amount of work which a student is expected to do in a year of work. There can be no doubt at all that in many normal schools the faculty, relying on the maturity of the students, administers a very heavy course of study. In all probability, it would be found that more hours are taken each week by normal-school students than are commonly taken by college students. It may be entirely legitimate to call upon normal-school students who are taking a professional course to exert themselves more strenuously than college students do. On the other hand, there can be no doubt at all that the student who would take advantage of leisure for reading and for general preparation of himself along the lines of his own selection is deprived of this opportunity by the heavy course which he is required to take in regular routine. Some definition of the policy of institutions in this matter would help greatly in adjusting the relation of normal courses to college courses. Very frequently a student who presents himself

for advanced standing in the university brings from the normal school a prodigious number of courses. This immediately arouses the skepticism of the university faculty, because they recognize the impossibility of taking so large a number of courses without curtailing the work in each. A definition, therefore, with regard to the amount of work of the student should parallel the definition that is called for above on the amount of work that is required of members of the faculty. An explicit tabular statement of the number of students who are taking four hours, five hours, six hours, etc., each day, would give a definite body of information which is not now at hand. That such information is not supplied by the colleges should not furnish justification for its omission from this report. The appearance of this type of material in normal-school reports would undoubtedly stimulate a discussion of the same problem in high schools and in universities, and anyone who makes a study of these institutions realizes that it will very shortly be necessary to canvass the whole problem of the amount of work that a student can properly be called upon to do each day. The relation of this discussion to outside activities is also clear. A definition of the social life of the students can hardly be given with clearness unless some attention is given to the amount of work which is required in the courses of the institution itself. By initiating this study, the normal schools can become leaders in an important general educational study.

*Another general educational problem is that of the elective course.*—A further item of information with regard to the students and their places in various courses is especially profitable when one considers the contrast between a normal school and the ordinary college course. In recent years the college course has come to be more and more an elective course. On the other hand, the professional schools have all required a much more rigid adherence to a prescribed series of studies. In the normal schools the conflict between academic and professional courses has frequently expressed itself in the fact that certain courses are required, while others are made elective, and the difference in equipment between different normal schools may frequently consist in the larger number of elective courses which are offered. These elective courses open the way for a wide differentiation of the course of study pursued by individual students and undoubtedly constitute the phase of normal-school organization which has brought these institutions most into competition with neighboring colleges. Furthermore, elective courses always bring with them the problem of the distribution of students of different degrees of maturity. When an elective course is open to students who have for some time been pursuing work in a given institution and at the same time to students who have just entered, there is likely to be so great a difference in the maturity of the student body that the administration of

the course is seriously complicated. Tables showing the kind of students admitted to certain courses, the emphasis which is laid in the natural course of election upon certain parts of the work in the normal school, and a clear statement of the registration in all of the required work would give a view of the distribution of the student body which it is very desirable to have.

*Courses for mature students.*—Furthermore, it is also important in estimating the work of the normal school to draw a sharp distinction between those students who are preparing to teach for the first time and those who are preparing in a larger way to increase their professional usefulness. In general it may be said that the summer school, or the summer quarter of the normal school, is very different in its character from the regular quarters, and throughout the year there are students who are taking courses of an advanced type because they wish to become supervisors rather than because they wish to enter the profession for the first time. A distribution of students throughout the year and a distribution of the students with reference to the ends which they wish to achieve through graduation should be made in such a way that one who examines the registration of a normal school shall distinguish between these different types of students and their length of residence during the year.

*Problem of costs.*—The period during which a student remains in the normal school is very important in determining the cost of normal-school instruction. It is desirable that every community should know what it costs per capita to educate students in any public institution. At the present time it is almost impossible, as indicated in an earlier chapter, to determine from the statistics of registration how many students are present in a normal school at any given time. The average attendance or the attendance for each month should be given in such a clear-cut way that it will be possible to determine what the actual instructorial activities of the institution are. A large summer quarter does not legitimately represent the actual work of an institution. On the other hand, there can be no doubt at all that the constituency which comes to normal schools during the summer is very important in determining the character of work that is done in the schools around that normal school.

Clearness in these matters is all that should be required. It is not necessary to lay down any rule, and there should be no effort to restrict the activity of a normal school in dealing with the different types of students which come to it. But it is desirable that these different types should be clearly defined.

*Distribution of graduates.*—Finally, a normal school should inform itself, and should inform the State which it serves, definitely with regard to the distribution of its graduates. The first question which here arises is the question of distribution to elementary or sec-



ondary schools. In the second place, the question immediately arises whether these normal-school graduates go into city schools or into rural schools. A clear statement on these matters would do much to determine the policy of the State with regard to appropriations and with regard to the maintenance of normal schools. There can be no doubt at all that in the majority of cases graduates of normal schools go to those city systems which are much better qualified to provide themselves with experienced teachers than are rural districts; and there can be no doubt at all that the number of graduates of normal schools who go into high schools constitutes a very genuine problem of public policy. In some quarters there are small high schools which can not draw their staff from the neighboring State universities. The normal schools are here called upon to perform a very genuine service to the community. To what extent this service is demanded we do not at the present time know, and we shall not know until definite statements can be made of the actual disposition of graduates of our normal schools.

The problem of the relation of normal schools to high-school training classes appears also at this point, for if the normal school can not supply the teachers necessary for rural districts, other means will have to be devised for the training of teachers. The whole problem of an adequate supply for the State, therefore, connects itself with this investigation of the disposition of the graduates.

Some diagrams of geographical distribution ought to be given, but here, as in an earlier instance, it is important to keep in mind the fact that an academic distribution is of more significance than the merely geographical distribution. What kind of schools these graduates serve is a much more important question to raise and answer than the mere question of the geographical distribution in terms of miles away from the institution that trains them. Tables of this sort should be clearly presented in the reports of the normal school.

Standardization is an elaborate process and may be slow.—The recommendations which have been made in the foregoing paragraphs call for a number of elaborate studies, and it will doubtless be objected by those who are in charge of the normal schools that it is not easily possible to supply the information which is here demanded. It will especially be objected that to supply all of this information in a single report would require a devotion on the part of the president and faculty of a normal school to investigation which is altogether out of proportion to their leisure and to the demands which are made upon them for routine work. It must be admitted immediately that an effort on the part of any given normal school to answer all of these questions in one year would entail a great amount of labor. It is the meaning of the authors of this monograph that the labor would be amply repaid in the establishment of general confidence in the admin-

istration of the school and in the classification that would come as a result of all of these investigations of all of the relations of the institution and of the student body. But if the recommendations can not all of them be acted upon at once, it is still urged that a gradual accumulation of all of these types of information is certainly possible. If one or two of the tables above recommended could be prepared in a given year and could be inserted in the catalogue of the normal school, and if the practice of collecting such information became general, comparison would immediately arise which would stimulate further investigations and would help to secure the necessary appropriations from legislatures to carry on these investigations on a larger scale. The experience of every State has, in recent years, made it clear that there is public demand for a clearer definition of these institutions. The necessity of maintaining relationships with other institutions has been dwelt upon again and again in this report, and the desirability of supplying a larger body of teachers is becoming one of the impressive problems of modern educational life.

**Lack of uniformity is advantageous if this is supplemented by careful scientific studies.**—The United States does less to train its teachers than any other great civilized nation, and there is less uniformity in the treatment of requirements for the schools than in any other nation. To be sure, these variations in organization and this lack of system bring certain advantages and give the school system of the United States a certain flexibility which other systems do not exhibit, but there is no reason why with the advantages of flexibility there should not come a clear definition of purposes and a clear account of the actual achievements of such system as we have. The recommendations made in this chapter are made with a view to securing this type of information. Flexibility which is of a thoroughly self-conscious type is greatly to be desired. Flexibility which is controlled by accidents and by chance requirements in particular localities and is not understood and is not clearly defined in any general way is a disadvantage rather than an advantage, and all of the recommendations which have been made in these paragraphs aim to eliminate so far as possible the purely accidental character of normal-school organization.

## OTHER PUBLICATIONS OF THE BUREAU OF EDUCATION DEALING WITH THE SUBJECT OF THIS BULLETIN.

[NOTE.—With the exceptions indicated, the documents named below will be sent free of charge upon application to the Commissioner of Education, Washington, D. C. Those marked with an asterisk (\*) are no longer available for free distribution, but may be had of the Superintendent of Documents, Government Printing Office, Washington, D. C., upon payment of the price stated. Remittances should be made in coin, currency, or money order. Stamps are not accepted.]

- \*A teachers' professional library. Classified list of 100 titles. 5 cts. (Bulletin, 1909, no. 8.)
- \*A course of study for the preparation of rural school-teachers. F. Mutchler and W. J. Craig. 5 cts. (Bulletin, 1912, no. 1.)
- \*Training courses for rural teachers. A. C. Monahan and R. H. Wright. 5 cts. (Bulletin, 1913, no. 2.)
- \*The training of teachers in England, Scotland, and Germany. C. H. Judd. 10 cts. (Bulletin, 1914, no. 35.)
- City training schools for teachers. F. A. Manny. (Bulletin, 1914, no. 47.)
- Efficiency and preparation of rural school-teachers. H. W. Foght. (Bulletin, 1914, no. 49.)
- The training of elementary school-teachers in mathematics. I. L. Kandel. (Bulletin, 1915, no. 39.)
- Normal schools. (Statistics.) Annual Report, 1914, vol. 2, chap. 6. (Available as a separate publication.)
- The training of teachers. S. C. Parker. Annual Report, 1915, vol. 1, chap. 7. (Available as a separate publication.)

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## PREFACE.

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By JOSEPH SWAIN,

*President of Swarthmore College and Chairman Committee on Salaries, Tenure, and Pensions, National Education Association.*

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Since the appointment of the committee on salaries, tenure, and pensions in October of 1911 there have been published by the committee, or by the United States Bureau of Education in cooperation with it, about 1,000 pages of literature, chiefly on teachers' salaries. The report of January, 1913, on teachers' salaries and cost of living, was an extensive study of economic conditions of teachers in four representative cities in different parts of the country—namely, Cincinnati, New Haven, Atlanta, and Denver. Bulletin of the Bureau of Education, 1914, No. 16, "The Tangible Rewards of Teaching," was a detailed statement of salaries paid to the several classes of teachers and school officers in different parts of the United States. Bulletin, 1915, No. 31, of the Bureau of Education was a comparative study of salaries of teachers and school officers. The study of these three publications will make clear to any impartial and enlightened observer that salaries of teachers in the United States are not large enough to provide properly for the numerous financial demands that their work makes upon them. (See "Teachers' Salaries and Cost of Living," pp. 234-235.) The overwhelming consensus of view of intelligent people in all walks of life who are familiar with present conditions in the United States is that not only must salaries be increased, but some kind of a retiring allowance in the form of a pension or annuity must be provided for all public school-teachers if we are to have a profession of teaching.

The studies thus far made naturally led the committee to the study of pensions. The subject is both a scientific and a social question. Many pension systems have failed because they had no sound economic basis. A system may have a sound economic basis and not be in a form acceptable to those who participate in it. The committee has brought experts, who have worked out the scientific basis on sound economic grounds, and the teacher and public-school officer together in the hope that we may have better pension legislation,

both sound in theory and acceptable in practice. This has been the purpose of a series of conferences held at Oakland, Detroit, and in New York City. It has been found that the subject of pensions is little understood and that much legislation has been more than useless. But it is clear that by cooperation of teachers, officers, experts, and the public a safe, sound, and efficient system can be secured in all parts of the United States.

The work of the committee this year has been in two directions. In cooperation with the Bureau of Education the present bulletin has been prepared. The purpose of this bulletin is to show the extent of the teachers' pension movement in a brief and summary way and to collect in convenient form pension legislation for public school-teachers in the United States. This bulletin is a natural introduction to the report on teachers' pensions, which, at the request of the committee, is now being prepared for it by the Carnegie Foundation for the Advancement of Teaching.

# STATE PENSION SYSTEMS FOR PUBLIC-SCHOOL TEACHERS.

## INTRODUCTION.

Pension and retirement legislation for teachers has developed rapidly in the past four or five years. Local retirement funds have in most instances given way to State systems, and there has come a general realization that some plan of retirement for teachers is essential in an efficient public-school system. To show the extent of the teachers' pension movement in a brief and summary way is the purpose of this bulletin. No attempt is made to argue for or against any particular form of pension plan, or to go analytically into the history of the pension movement, since these have already been the subject of careful study by competent investigators. In the past half dozen years pension literature has been enriched by the report of the Massachusetts commission on old-age pensions, annuities, and insurance (Boston, 1910), which afforded a background for the careful study of teachers' pensions in the same State three years later; by various Government reports, including summaries of the pension situation for teachers in the United States and Europe, of which the more important are Senate Document No. 823, of the Sixty-first Congress, and Bulletin, 1913, No. 34 of the United States Bureau of Education (*Teachers' Pensions in Great Britain*); by "The Teacher and Old Age," Mr. Prosser's survey of teachers' retirement systems, which is especially significant in its statement of the case from the standpoint of social insurance; and by the numerous contributions of the Carnegie Foundation for the Advancement of Teaching, which, based on practical experience in the administration of college pensions, properly emphasize the fundamental actuarial problems involved in the making of pensions for any class of employees.<sup>1</sup>

The present bulletin seeks to show the existing situation in the various States; to outline the plans that have been adopted, and give some indication of the results; and to reproduce for the information of those studying teachers' pensions several of the pension laws now on the statute books.

## STATES HAVING PENSION SYSTEMS.

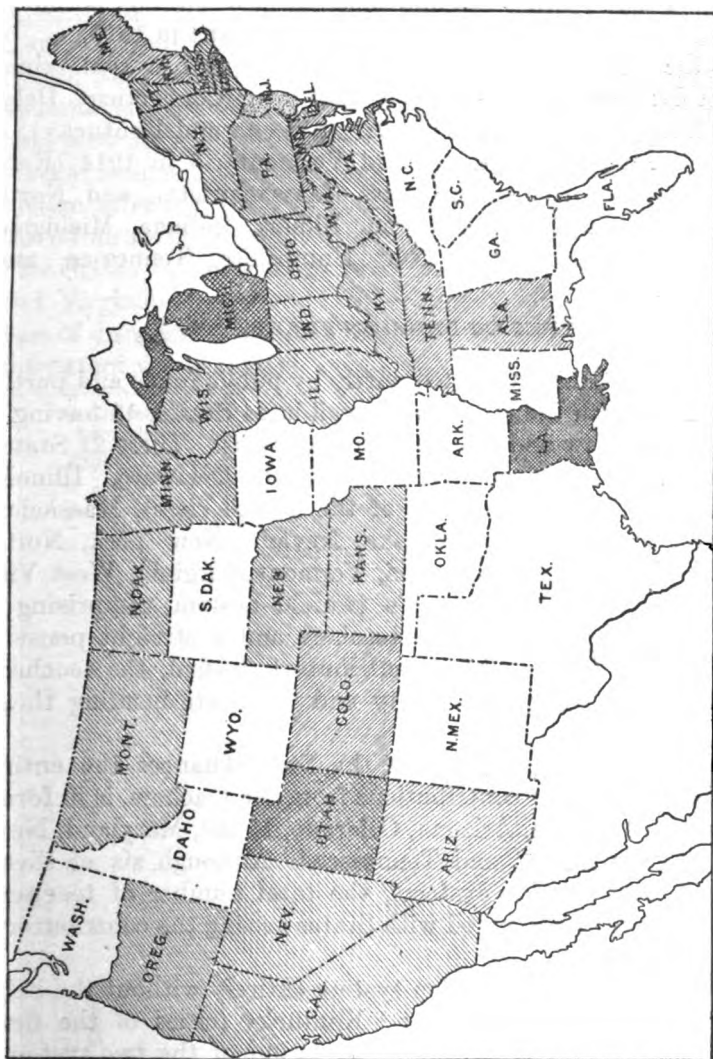
State systems of pensions or retirement for public-school teachers are maintained in 33 States. Of these, 21 are State-wide in their application, 5 affect two or more cities in the State, and 7 apply to a single city or county.

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<sup>1</sup> See especially the Tenth Annual Report (1915) and Bulletin No. 9



Wilmington only. Pennsylvania has a local option law under which 11 cities have established retirement systems. The Kansas law affects "all cities of the first class"—Topeka, Kansas City, and Wichita. Kentucky has one law affecting Louisville ("all cities of the first class"), and another affecting Lexington, Covington, New-



**TYPES OF TEACHERS' PENSION SYSTEMS.**

Contributory plan—Supported jointly by teachers and the public.

Noncontributory plan—Maintained wholly by public funds.

Supported by the teachers.

Double system—One system maintained by the State; the other by the teachers (New Jersey).

NOTE.—The Louisville, Ky., plan is supported by the teachers.

port, and Paducah ("all cities of the second class"). The Louisiana act applies to the city of New Orleans; the Nebraska law affects Omaha only; Oregon's optional law has been availed of by the city of Portland; Tennessee has a retirement system for Chattanooga, and the West Virginia law applies to the city of Wheeling.

**DATES OF ESTABLISHMENT OF PENSION SYSTEMS.**

The teachers' pension movement is a recent development in the United States. The teachers' retirement fund of New Jersey dates from 1896. The Ohio noncontributory plan was adopted in 1897. In 1907 Rhode Island established a State-wide retirement system on a noncontributory basis. Virginia enacted pension legislation in 1908, Colorado and Nebraska in 1909, and Louisiana in 1910.

Most of the development in teachers' pensions has come since 1911. Four States created systems in that year (Connecticut, Delaware, New York, Wisconsin); 2 in 1912 (Arizona and Kentucky); 4 in 1913 (California, Maine, Utah, and Vermont); 3 in 1914 (Kentucky—for cities of the second class—Massachusetts, and North Dakota); and 10 in 1915 (Alabama, Illinois, Indiana, Michigan, Minnesota, Montana, Nevada, New Hampshire, Tennessee, and West Virginia).

**TYPES OF PENSION PLANS.**

Contributory systems, supported partly by public funds and partly by contributions from the teachers, prevail in 21 States, 13 having a State-wide pension law and 8 having local systems. These 21 States are: California, Connecticut (New London), Delaware, Illinois, Indiana, Kansas, Kentucky (cities of the second class), Massachusetts, Minnesota, Montana, Nebraska, Nevada, New York, North Dakota, Ohio, Oregon, Pennsylvania, Vermont, Virginia, West Virginia, and Wisconsin. New Jersey's twofold system, comprising a retirement plan supported by the teachers and a straight pension paid by the State, is in effect a contributory system, the teachers insuring themselves against disability and the State insuring them against old age.

The noncontributory plan, where the State finances the entire scheme without the aid of contributions from the teachers, is in force in eight States—Alabama, Arizona, Colorado, Maine, Maryland, New Hampshire, Rhode Island, and Tennessee.<sup>1</sup> Although six of these are States with State-wide systems, the total number of teachers affected is not large as compared with States having the contributory system.<sup>2</sup>

The teachers finance the pension system entirely without the help of public funds in Utah, Michigan,<sup>1</sup> Kentucky (cities of the first class), and Louisiana (New Orleans), and in one of the two systems in New Jersey, as described elsewhere.<sup>2</sup>

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<sup>1</sup> For New Jersey, see preceding paragraph; see also Appendix C.

<sup>2</sup> For example, Arizona had 5 pensioners in 1916 and New Hampshire 65.

## PROVISION FOR REFUNDS.

Few States make provision for refund of money paid in by teachers on the contributory plan. Massachusetts is the only State that refunds the total amount, with interest, in case of death or resignation. Indiana pays back the actual amount contributed, but without interest, and Utah refunds the full amount at death. In nine States—Kansas, Kentucky (Louisville), Louisiana, Michigan, Minnesota, North Dakota, Ohio, West Virginia, and Wisconsin—one-half the amount paid in is refunded in case of death or resignation. The Illinois plan allows a return of one-half the amount contributed if the teacher resigns before completing 15 years of service. The Kentucky system affecting cities of the second class provides for a refund of three-fourths the amount contributed, in case of death or resignation. Five States—Connecticut (New Haven), Kansas, Ohio, West Virginia, and Virginia—provide for full return of all amounts contributed in case of dismissal, Virginia adding interest at 6 per cent. In Delaware the payment of refunds is made optional with the board of retirement.

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<sup>1</sup> The constitutionality of the Michigan law is in question, however. See note to table.

<sup>2</sup> See table.



## STATE PENSION SYSTEMS FOR PUBLIC-SCHOOL TEACHERS.

States.	Year established.	Extent.	How supported.	Amount of pension paid.	Years of service before pension begins.	Amount required paid in before retirement.	Provision for re-funds.	Administration.
Alabama.....	1915	"All counties having a population of 80,000 and less than 82,000" (McBride County). State-wide.....	Appropriation from county school funds. Noncontributory system.	\$240.....	30; must be 60 years of age and "without means of comfortable support."	.....	.....	County board of education.
Arizona.....	1912	.....	Appropriation from State. Noncontributory system. \$12 per annum from teachers' salaries; 5 per cent of inheritance and transfer tax; gifts; donations and appropriations by legislature. Contributory system. Special tax of one-tenth of 1 mill; gifts and bequests. Non-contributory system.	\$400..... \$500; if incapacitated, a sum bearing the same ratio to \$500 as time taught is to 30 years.	25..... 30; 15, including last 10, must have been in service in public schools of State; 15, if incapacitated.	.....	.....	State department of Public Instruction. State board of education.
California.....	1913	.....	.....	\$480.....	25; 15 must have been in public schools of said district; 10, if incapacitated. Men must be at least 60 years of age, women, 55.	\$300.....	.....	Board of school directors for the district.
Colorado.....	1909	"All districts of the first class" (Denver, Pueblo, and Colorado Springs).	1 per cent of salary of teachers for 10 years; 2 per cent for over 10 years; gifts and bequests. Appropriation is permitted.	Minimum, \$400; maximum, \$800. Between minimum and maximum, annuity is one-half average annual salary for last 5 years' service.	30; last 20 in New Haven. 15, if incapacitated, last 10 in New Haven. Must be at least 65 years of age.	Amount equal to annuity for first year.	Amount contributed, without interest, is refunded in case of dismissal; in case of resignation no refund is made.	Two members of school board, member of aldermen, treasurer of city, and 1 teacher.
Connecticut.....	1911	New Haven only.	1 per cent of salary of teachers; 5 per cent of liquor license; amount equal to 3 per cent of salary list and 3 per cent of excise fees; gifts and bequests. Contributory system.	One-half average annual salary for last 5 years' service.	30; last 15 in New London. 15, if incapacitated, last 10 in New London.	.....	Note.....	Board of retirement consisting of 5 members: Mayor, President of Board of school visitors, superintendent of schools and 2 members of teaching force.

Delaware.....	1911	Wilmington only.	1 per cent of salary of teachers for 10 years; 2 per cent for 10 to 20 years; 3 per cent for more than 20 years; \$1,000 annually by school board; \$3,000 annually by city council; gifts and bequests. Contributory system.	\$400; if service has been 20 to 25 years, a sum bearing the same ratio to \$400 as time taught is to 35 years.	35; eligible to retire: 30, if 65 years of age; 20, if incapacitated. At least 15 years must have been in Wilmington.	\$400.....	Optional with board of retirement.	Board of retirement composed of certain officials and 3 teachers.
Illinois.....	1915	State-wide.	\$1 from salary of teachers for first 5 months of each year for first 10 years; \$2 for first 5 months of each year for 10 to 15 years; \$6 for first 5 months for over 15 years for a period of 10 years; one-tenth of 1 mill on all taxable property in State (exclusive of cities and school districts not coming under the provisions of this act); gifts and bequests. Contributory system.	\$16 annually for each year taught. Maximum, \$400.	25; if 50 years of age; 15, if incapacitated. No age requirement if retired because incapacitated.	\$400.....	In case of resignation before completing 15 years' service, one-half amount contributed is refunded.	Board of trustees of State teachers' pension and retirement fund, consisting of 5 members: Superintendent of Public Instruction, State treasurer, and 3 other members elected by the bona fide contributors to the funds.
Indiana.....	1915	State-wide.	\$10 from salary of teachers for first 15 years; \$20 for next 10 years; \$25 for next 10 years; \$20 for next 5 years; no payment required; semiannual appropriation of State school tuition tax; gifts, bequests, and grants. Contributory system.	25 years, \$350; 26 years, \$375; 27 years, \$400; 28 years, \$425; 29 years, \$450; 30 years, \$475; 31 years, \$500; 32 years, \$525; 33 years, \$550; 34 years, \$575; 35 years, \$600; 36 years, \$625; 37 years, \$650; 38 years, \$680; 39 years, \$700.	35; 25, if incapacitated. After 35 years of teaching service, 12 years of which may have been outside of State, pension is granted for any cause whatsoever if beneficiary ceases to be employed in schools of State.	One-half maximum annuity.	In case of resignation, amount contributed without interest, is refunded.	Board of trustees of Indiana State teachers' retirement fund, consisting of 5 members: State superintendent of public instruction, State auditor, attorney general, and 2 teachers or superintending teachers appointed by the governor.

<sup>1</sup> Except in the case of rural and village teachers who are not paid by the 12-month payment system and contribute only \$1 for each month of their teaching.

<sup>2</sup> System for New London will not be operative until fund amounts to \$60,000. (Amount on hand March 1916, \$10,000.)

<sup>3</sup> Cities having a population in excess of 65,000 at 1910 census, operating a pension fund at time law took effect, do not come under the provisions of this act. (This excludes Chicago and Peoria.)

<sup>4</sup> There are other teachers' pension laws in force under which cities of certain classes may operate, though such cities may come under this 1915 law.

State pension system for public-school teachers—Continued.

States.	Year established.	Extent.	How supported.	Amount of pension paid.	Years of service before pension begins.	Amount required paid in before retirement.	Provision for re-funds.	Administration.
Kansas.....	.....	"All cities of the first class" (Topeka, Kansas City, and Wichita).	1 to 14 per cent of salary of teachers; one and one-half times salary assessments from school funds; gifts and bequests. Contributory system.	\$500; if incapacitated, such proportion of \$500 as time taught is to 30 years.	30; 15 must have been in service in public schools of city; 25, if incapacitated, 15 must have been in public service in public schools of city.	Not less than one-half the amount of first annuity.	In case of death or resignation, one-half amount paid in is refunded; if discharged, total amount paid in is refunded.	City board of education.
Kentucky.....	1912	"All cities of the first class" (Louisville).	1 per cent per annum from salary of teachers, not to exceed \$10 for first 15 years; 2 per cent per annum, not to exceed \$30 for succeeding 15 years; and gifts. Supported by teachers.	\$400.....	40; 20, if incapacitated.	Amount equal to first annuity.	In case of death or resignation, one-half the amount paid in is refunded.	Board of trustees of teachers' retirement fund, consisting of 7 members.
	1914	"All cities of the second class" (Lexington, Covington, Newport, and Paducah).	1 per cent from salary of teachers for first 10 years; 2 per cent for succeeding 10 years; not to exceed \$10 annually; tax of 1 cent on every \$100 worth of taxable property. Contributory system.	\$600.....	25; 15, if incapacitated.	.....do.....	In case of death or resignation, three-fourths the amount paid in is refunded.	Committee of 7 school officers and teachers.
Louisiana.....	1910	"Parish of Orleans" (City of New Orleans).	1 per cent per month from salary of teachers for 10 years; 1 1/2 per cent per month for succeeding 10 years; 2 per cent per month from all teachers not engaged in classroom teaching; gifts, grants, and bequests. Supported by teachers.	Minimum, \$300; maximum \$600. Between minimum and maximum, annuity is one-half average annual salary for last 5 years preceding retirement.	30; 5, if incapacitated. Any teacher 65 years of age.	.....do.....	In case of death or resignation, one-half the amount paid in is refunded.	Board of trustees of teachers' retirement fund, consisting of 9 members: Superintendent of schools, 3 members of board of directors, and 5 members of teaching force. Members receive no compensation.

State	Year	State-wide	State appropriation of \$25,000 annually. Noncontributory system.	26 years, \$150; 30 years, \$200; 36 years, \$250.	35; 20 years, including last 15, must have been in service in public schools of the State. Must be at least 60 years of age. 25, if 60 years of age and "without means of comfortable support."	Amount which will purchase an annuity of \$500 at age of 60.	In case of death or resignation, total amount contributed, with interest, is refunded.	Teachers' retirement board, consisting of 7 members: Insurance commission, 3 members of the association, and 1 other member.	State board of education.
Maine	1913	State-wide	State appropriation of \$25,000 annually. Noncontributory system.	26 years, \$150; 30 years, \$200; 36 years, \$250.	35; 20 years, including last 15, must have been in service in public schools of the State. Must be at least 60 years of age. 25, if 60 years of age and "without means of comfortable support."	Amount which will purchase an annuity of \$500 at age of 60.	In case of death or resignation, total amount contributed, with interest, is refunded.	Teachers' retirement board, consisting of 7 members: Insurance commission, 3 members of the association, and 1 other member.	State board of education.
Maryland	1902	do.	State appropriation of \$34,000 annually. Noncontributory system.	26 years, \$150; 30 years, \$200; 36 years, \$250.	35; 20 years, including last 15, must have been in service in public schools of the State. Must be at least 60 years of age. 25, if 60 years of age and "without means of comfortable support."	Amount which will purchase an annuity of \$500 at age of 60.	In case of death or resignation, total amount contributed, with interest, is refunded.	Teachers' retirement board, consisting of 7 members: Insurance commission, 3 members of the association, and 1 other member.	State board of education.
Massachusetts	1914	do.	Not less than 3 per cent, nor more than 7 per cent per annum from salary of teachers, minimum assessment, \$35; maximum, \$100; rate fixed annually by retirement board; present rate 5 per cent. Contributory system.	26 years, \$150; 30 years, \$200; 36 years, \$250.	35; 20 years, including last 15, must have been in service in public schools of the State. Must be at least 60 years of age. 25, if 60 years of age and "without means of comfortable support."	Amount which will purchase an annuity of \$500 at age of 60.	In case of death or resignation, total amount contributed, with interest, is refunded.	Teachers' retirement board, consisting of 7 members: Insurance commission, 3 members of the association, and 1 other member.	State board of education.
Michigan	1915	State-wide	1 per cent per annum from salary of teachers, but not to exceed \$5 per year for 5 years (board may increase to 1 per cent, but not to exceed \$10); 1 per cent per annum, but not to exceed \$10 for from 5 to 15 years (board may increase to 2 per cent, but not to exceed \$20); 2 per cent per annum, but not to exceed \$20 for over 15 years (board may increase to 3 per cent, but not to exceed \$30); gifts, donations, legacies, bequests, and income from investments. Supported by teachers.	26 years, \$150; 30 years, \$200; 36 years, \$250.	35; 20 years, including last 15, must have been in service in public schools of the State. Must be at least 60 years of age. 25, if 60 years of age and "without means of comfortable support."	Amount which will purchase an annuity of \$500 at age of 60.	In case of death or resignation, total amount contributed, with interest, is refunded.	Teachers' retirement board, consisting of 7 members: Insurance commission, 3 members of the association, and 1 other member.	State board of education.

<sup>1</sup> Membership is compulsory for teachers who enter the service for the first time after the date of establishment; optional for teachers who have never served in the State prior to establishment. Boston teachers are excluded, except these in continuation and industrial schools.

<sup>2</sup> "Although a teachers' pension law was passed by the legislature, there is a question as to the constitutionality of this law. It seems quite probable that the whole thing will be thrown out." (Letter from State Supt. Fred L. Keeler, Lansing, Mich., Mar. 6, 1916.)

## State pension systems for public-school teachers—Continued.

States.	Year established.	Extent.	How supported.	Amount of pension paid.	Years of service before pension begins.	Amount required paid in before retirement.	Provision for re-funds.	Administration.
Minnesota.....	1915	State-wide. (Optional with teachers employed in State at time of passage of law.)	\$5 per year for first 5 years from salary of teachers; \$10 per year for second 5 years; \$20 per year for next 10 years; \$30 per year for next 5 years; teachers receiving \$1,500 per year or more; 14 per cent per year, but not to exceed \$20 for first 10 years; 2 per cent per year, but not to exceed \$40 for successive years. (Deductions not made for more than 25 years.) Donations, legacies, interest on investment, and tax of one-twentieth of 1 mill on all taxable property. Contributory system.	20 years, \$350; 21 years, \$380; 22 years, \$410; 23 years, \$440; 24 years, \$470; 25 years, \$500. If incapacitated, a sum bearing same ratio to \$350 as time taught is to 20 years.	20; 15, including last 5 preceding retirement, must have been in public schools of the State; 15, if incapacitated.	.....	In case of death or resignation, one-half the amount contributed is refunded.	Board of trustees of teachers' insurance fund, consisting of 5 members: State superintendent of education, State auditor, attorney general, and 2 members of association. Members shall receive \$5 per day and all necessary expenses while attending meetings of the board.
Montana.....	1915	State-wide.....	\$1 per month from salary of teachers; income from investments, donations, gifts, bequests, and money appropriated by State. Contributory system.	\$800; if incapacitated, a sum bearing same ratio to \$800 as time taught is to 25 years.	25; 15, including last 10 must have been in service in the State; 15, if incapacitated.	Amount equal to \$12 for each year's service up to and including 25 years.	No refund.....	Public-school teachers' retirement fund, consisting of 3 members: Superintendent of public instruction, treasurer, and attorney general. Members receive compensation as fixed by board.

Nebraska.....	1909	"All cities of the metropolitan class" (Omaha).	1 to 1½ per cent from salary of teachers; amount from general district fund equal to not less than one and one-half times salary assessment; gifts and bequests. Contributory system.	\$500; If retired before rendering 35 years' service a sum bearing same ratio to \$500 as time taught is to 35 years.	35; 35, if incapacitated; 40, compulsory retirement; at least 20 years must have been in service in the public schools of the school district.	Board of education.
Nevada.....	1915	State-wide. (Optional with teachers employed in State at time of passage of law.)	\$9 per annum from salary of teachers; tax of 3 mills on each \$100 worth of taxable property in State; donations, gifts, legacies, and bequests. Contributory system.	\$300.....	30; 35, if incapacitated; 40, compulsory retirement; at least 20 years must have been in service in the public schools of the school district.	State board of education.
New Hampshire.	1915	State-wide.....	Appropriation of \$10,000 from State. Noncontributory system.	One-half average annual salary for last 5 years preceding retirement; if incapacitated, a sum bearing same ratio to full annuity as time taught is to 35 years in case of men or 30 years in case of women.	For women, 30; 15, including last 10 preceding retirement, must have been in service in public schools in the State; teachers must be at least 55 years of age. For men, 35; 15, including last 10 preceding retirement, must have been in service in public schools in the State; teachers must be at least 60 years of age.	State department of public instruction.
New Jersey.....	1896	.....do.....	2 per cent from salary of teachers for first 10 years; 2½ per cent for from 10 to 15 years; 3 per cent for over 15 years; no deduction to exceed \$50 in any one year, nor \$1,000 in all; gifts, donations, legacies, and bequests. Supported by teachers.	Minimum, \$250; maximum, \$550. If incapacitated, for from 10 to 15 years; 3 per cent for average annual salary for 5 years preceding retirement.	20, if incapacitated.....	Board of trustees of teachers' retirement fund, consisting of 9 members: Commissioner of education, 3 persons not teachers and not eligible to membership of said fund, and 5 persons, members of said fund.

<sup>1</sup> New Jersey has a twofold system, one a disability pension maintained by the teachers; the other a service pension provided for by the State in its tax of railroads.

State pension systems for public-school teachers—Continued.

States.	Year established.	Extent.	How supported.	Amount of pension paid.	Years of service before pension begins.	Amount required paid in before retirement.	Provision for re-funds.	Administration.
New Jersey.....	1907	State-wide.....	State railroad tax.....	One-half the average annual salary received for the last 5 years of service.	35; last 25 must have been in service in public schools of State; and teacher 70 years of age whose last 20 years of service have been in the public schools of the State; any teacher 75 years of age whose last 32 years of service have been in the public schools of the State; any teacher 70 years of age who has served not less than 35 years in the State, who hereafter, shall be retired or discharged for physical disability.	None.....	.....	State commissioner of education.
New York.....	1911	.....do. <sup>s</sup> .....	1 per cent from salary of teachers; similar amount from cities and districts. Contributory system.	One-half average annual salary for 5 years preceding retirement; maximum, \$600, if incapacitated, a sum bearing the same ratio to full annuity as time taught is to 25 years.	25; 15 must have been service in public schools in State; 15, if incapacitated; last 9 in service in public schools of the State. Must be 60 years of age.	Amount equal to one-half annuity for first year.	None.....	State teachers' retirement fund board, consisting of 5 members: Superintendent of schools, academic principal, teacher in elementary schools, and two others. Board must have at least 1 woman. Members are allowed expenses, but no compensation.
North Dakota....	1914	.....do.....	1 per cent from salary of teachers for first 10 years, not to exceed \$20; 2 per cent for succeeding 15 years, not to exceed \$40; 10 cents for	One-fiftieth average annual salary for last 5 years multiplied by number of years of service.	25; 18, including last 5 preceding retirement, must have been in service in public schools in the State; 15, if incapacitated.	Amount equal to annuity for first year.	In case of retirement, one-half the amount contributed is re-funded.	Board of trustees of teachers' insurance and retirement fund, consisting of 5 members: State superintendent of public instruction,

# STATE PENSION SYSTEMS FOR TEACHERS.

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Ohio.....	1897	each child of school age in the county; gifts and bequests. Contributory system.	\$2 per month from salary of teachers; all deductions from salaries of teachers on account of absence or tardiness; 1 cent to 2 per cent of gross receipts of board raised by taxation, gifts, etc. Contributory system.	\$12.50 annually for each year taught; maximum, \$450.	30: 15 must have been in service in public schools of district; 20, if not apportioned; 10, if not have been in public schools of the district.	\$20 per year for each year's service; maximum, \$600.	In case of death or disability, one-half of amount contributed is refunded; in case of dismissal, amount contributed is refunded.	State treasurer, and 3 teachers, 1 of whom shall be a woman. Members receive expenses of attending meetings, but no compensation.
.....do.....			\$2 per month from salary of teachers; all deductions from salaries of teachers on account of absence or tardiness; 1 cent to 2 per cent of gross receipts of board raised by taxation, gifts, etc. Contributory system.	\$12.50 annually for each year taught; maximum, \$450.	30: 15 must have been in service in public schools of district; 20, if not apportioned; 10, if not have been in public schools of the district.	\$20 per year for each year's service; maximum, \$600.	In case of death or disability, one-half of amount contributed is refunded; in case of dismissal, amount contributed is refunded.	Board of trustees of school-teachers' retirement fund, consisting of not less than 7 members. Members receive no compensation.
Oregon.....	1911	Permissive for districts having more than 10,000 children of school age." (Portland.)	Not less than \$1 per month from salary of teachers during first 10 years, not less than \$2 per month during next 10 years, not more than \$4 per month during third 10 years; 3 per cent of county school tax; fines; gifts; bequests. Contributory system.	\$300-\$600	30: 20 if unexpedited.	\$600	In case of resignation, amount paid in excess of \$500 is refunded. If dismissed, the entire amount contributed is refunded.	Board of trustees of the teachers' retirement fund as association.
Pennsylvania.....	1907	All school districts that elect to come under provisions of law (Altoona, Harrisburg, Philadelphia, Reading, Berre, Williamsport, Scranton, Lancaster, Pottsville, Meadville, and Chester).	Dues from teachers; 2 appropriate contributions from districts; donations, bequests, etc., contributory system.	(9)	(9)	(9)	(9)	Board of school directors of the district.

1 New Jersey has a twofold system, one a disability pension maintained by the teachers; the other a service pension provided by the State. (See Appendix C.)  
 2 Not including New York City, Buffalo, Syracuse, Rochester, Troy, Albany, Cohoes, Mount Vernon, and Westchester County, which maintain separate systems.  
 3 The law provides that "No employee shall be required to contribute any part of his salary to the retirement fund, unless the same is provided for in the agreement by which he is engaged."  
 4 Each district has its own regulations.



## State pension systems for public-school teachers—Continued.

States.	Year established.	Extent.	How supported.	Amount of pension paid.	Years of service before pension begins.	Amount required paid in before retirement.	Provision for re-funds.	Administration.
Rhode Island	1907	State-wide	Noncontributory system.	One-half average annual salary for last 5 years' service; maximum, \$500; if incapacitated, a sum bearing same ratio to \$500 as time taught is to 35 years. Two-thirds amount teacher received last year of employment in the public schools of the city.	35; 25, including last 15 preceding retirement, must have been in service in the public schools of the State; 20, if incapacitated.			State board of education.
Tennessee	1915	Chattanooga only.	Appropriation from city funds. Noncontributory system.	One-half average annual salary for 5 years preceding retirement; maximum, \$300; if less than 30 years of service and more than 20 years, a sum bearing same ratio to \$300 as time taught is to 30 years.	30; must be at least 60 years of age.			Board of commissioners.
Utah	1913	State-wide	1 per cent, but not to exceed \$12 annually from salary of teachers; deductions from salary of teachers on account of absence, not to exceed 5 days in any one year; gifts and bequests. Supported by teachers.	One-half average annual salary for 5 years preceding retirement; maximum, \$300; if less than 30 years of service and more than 20 years, a sum bearing same ratio to \$300 as time taught is to 30 years.	30; 10 must have been in schools of the State; must be at least 60 years of age. 20 to 30 for temporary retirement for incapacity; 10 must have been in schools of the State.	Amount equal to 1 per cent of entire salary received for years of service on basis not to exceed \$1,200 annually; provided that delinquent dues may be deducted from annuity, and then distributed over a not more than 5 years.	In case of death, amount contributed refunded.	Public-school teachers' retirement commission, consisting of 15 members: State auditor, treasurer, superintendent, attorney general, and 11 members of association.
Vermont	1913	do	Contributions from teachers; appropriations from legislature; income from investments, gifts, and bequests. Contributory system.	One-half average annual salary for last 5 years' preceding retirement; maximum, \$500; if incapacitated, amount determined by board.	25			Vermont State teachers' retirement fund board, consisting of 5 members: Governor, superintendent of education, treasurer, president of board, and 1 member.

Virginia.....	1908	.....do.....	1 per cent from salary of teachers; appropriation from State of \$10,000 annually; gifts and bequests. Contributory system.	One-eighth average annual salary for last 5 years preceding retirement.	30; men must be 53 years of age, women, 50; if incapacitated, 20.	30 per cent of average annual salary for last 5 years of service less the amount already contributed to the pension fund.	In case of dismissal, amount contributed plus interest at 5 per cent is refunded.	Members receive expenses, but no compensation. Department of public instruction.
West Virginia.....	1915	Wheeling only	\$20 annually from salary of teachers; appropriation from school funds; donations, gifts, and legacies. Contributory system.	\$360.....	30; 10 must have been in Wheeling schools. Compulsory at 65 years of age.	\$200.....	Four members of board of education and 3 teachers.	
Wisconsin.....	1911	State-wide, "except office of the first class" (Milwaukee).	1 per cent from salary of teachers, not to exceed \$15 for each of first 10 years; 2 per cent, but not to exceed \$30 for each of the succeeding 15 years; seven-tenths of mill tax levied for common schools; 10 cents for each person of school age in the State; donations and legacies. Contributory system.	\$12.50 for each year of service; maximum, \$450.	25; 18 must have been in service in the public schools of the State; 13, if incapacitated.	Amount equal to annuity for first year.	Board of trustees of teachers' insurance and retirement fund, consisting of 5 members: State superintendent of public instruction, State treasurer and 3 members of association, 1 of whom must be a woman. Members, except secretary, receive expenses, but no compensation; secretary may receive salary not to exceed \$1,800 per annum.	

# ADDITIONAL NOTES ON THE TEACHERS' PENSION SITUATION IN THE VARIOUS STATES.

[Compiled from special reports by State officials.]

*Arizona.*—What we have is not a pension law in the true sense of the term; it is more of a direct payment out of the State school fund to a few of our worthy pioneer teachers in this State.

C. O. CASE, *State Superintendent of Public Instruction.*

*Arkansas.*—There is no law in this State authorizing a pension or retirement system for school-teachers, and no authority in the law whereby such system could be placed in operation in any of the cities or counties of the State.

GEO. B. COOK, *State Superintendent of Public Instruction.*

*Florida.*—There is no law whatever in Florida granting pensions to teachers, nor do I know of any county or city in the State that grants such pensions. Two or three years ago a bill providing for teachers' pensions was introduced in our State legislature and received considerable support but did not pass.

W. N. SHEATS, *State Superintendent of Public Instruction.*

*Georgia.*—There are no laws of State-wide force concerning this subject. Any local system, however, has the right to pension teachers if desired. In two or three places movements have been inaugurated for this purpose.

M. L. BRITAIN, *State Superintendent of Schools.*

*Idaho.*—We have no pension system for teachers in this State. This is to be attributed to the State's youth, and to the fact that the teachers of our State are young and have not felt the necessity of the pension system. Of course, as the State develops and our teachers serve long tenure in schools in this State, this question will undoubtedly arise. A large number of our teaching force are transient—with us two or three years, perhaps a little longer, and then they move on to the farther western States, to Alaska, and the Hawaiian Islands. From this it is evident that our teaching body is not a permanent one by any means. Consequently, the question of pensions has not become a problem with us at all.

BERNICE MCCOY, *Superintendent of Public Instruction.*

*Illinois.*—The Illinois State teachers' pension and retirement fund was established by the forty-ninth general assembly and the law went into effect on July 1, 1915. It is still rather early to properly judge the sentiment in regard to change, extension, or alteration of the existing plan. As yet our efforts have been largely occupied in putting into operation the law and developing the system of administration.

D. F. NICKOLS, *Secretary Teachers' Pension and Retirement Fund.*

*Iowa.*—We do not have such a law [relating to teachers' pensions] in this State. An effort has been made at each session of the legislature for the past four years, but so far we have been unsuccessful.

A. M. DEYOE, *Superintendent of Public Instruction.*

*Maine.*—The law provides that pensions shall be granted to teachers on three different bases: Those who have taught between 25 and 30 years receive \$150; those who have taught between 30 and 35 years receive \$200; and those who have taught more than 35 years receive \$250. In addition to these there is also provision for the payment of one-half these amounts to teachers who otherwise meet the requirements of the law, but whose service ended prior to the school year next preceding the 30th day of September, 1913.

The form of administration is simple. Upon presentation of proper proof of age and service a certificate is granted to the applicant, and thereafter an application blank is filed by the pensioner at the end of each three-month period. Upon receipt

of this application the State superintendent of schools certifies to the governor and council the amount due each pensioner and payment is made directly by the treasurer of State.

PAYSON SMITH, *State Superintendent of Public Schools.*

*Massachusetts.*—Most of the teachers seem to be entirely satisfied with the system. There is a feeling among some of the teachers, however, that a disability feature should be incorporated in the law. There are two disability bills before the legislature at the present time and also a bill which provides that the interest allowed on the contributions of the members be changed from 3 per cent to the amount actually earned.

CLAYTON L. LENT, *Secretary Teachers' Retirement Board.*

*Minnesota.*—This is the first year of the operation of this law. It is giving quite general satisfaction. The young teachers object to the compulsory feature, and teachers who have served for many years, but who quit before the law was passed, complain because of ineligibility to membership. The only way such teachers can qualify is by returning to the service and teaching for five years in the State. It is too early to make any prediction as to the successful operation of the law as it stands, but thus far its provisions seem to meet with general satisfaction.

E. T. CRITCHETT, *Secretary Teachers' Insurance and Retirement Fund.*

*Missouri.*—We have no law in Missouri on the subject of teachers' pensions. St. Louis has had a system of pensions for some years, but it is a private arrangement. Some years ago a bill was introduced and a hard fight made to pass a law providing for a retiring fund for teachers, but it failed of approval in both house and senate.

HOWARD A. GASS, *State Superintendent of Education.*

*Montana.*—The law has not yet been in force long enough to make it possible to give any report in regard to the operation of the law. It will not be possible for any one to be retired under the law for at least three years yet.

H. H. SWAIN, *Secretary Retirement Salary Fund Board.*

*New Hampshire.*—One point in the law needs to be amended. Section 8, the last paragraph, states: "Preference being given to those certified as entitled in the order of their age." Every quarter there is a change made in the list of pensioners, inasmuch as the \$10,000 is already more than taken up. This makes it necessary to drop off the youngest on our list if pensioners coming in since the last payment are older. This is a pretty trying situation, and in some way will have to be amended. We have on our list to-day 65 pensioners and 15 of these are under the age now when a pension can be allowed.

HARRIET L. HUNTRESS, *Deputy State Superintendent.*

*New Mexico.*—This State has no arrangements whatever concerning pensions or retirement plans. It is just lately that an interest has been awakened in this matter, and it is possible that there may be some legislation looking toward the establishment of pensions for teachers in the not distant future.

FILADELFO BACA, *Assistant State Superintendent of Education.*

*New York.*—The teachers' retirement plan in this State is more than meeting the expectation, I think, of its most ardent advocates. One of the chief factors, if not the most important one, in such pension schemes is the administration of the fund, necessitating conservative, watchful care on the part of the board in considering persons for the annuitant list. Generally I believe the plan is meeting not only the needs, but is having the cheerful cooperation of the teachers, superintendents, and other school officials of the State.

E. G. LANTMAN, *Secretary Teachers' Retirement Fund Board.*

*North Carolina.*—This State does not have a pension system to take care of its teachers. The city of Raleigh has adopted a pension system, however.

C. E. MCINTOSH, *Chief Clerk, Department of Education.*

*Oklahoma.*—We have no legislation providing for teachers' pensions in Oklahoma. I do not believe a law providing for the pensioning of teachers has ever been proposed by the legislature in this State. We know of no cities in Oklahoma in which pension or retirement plans are in operation.

R. H. WILSON, *State Superintendent of Public Instruction.*

*Pennsylvania.*—Under our constitution pensions can only be paid for service in the Army or Navy of the State or the United States. For this reason we have not been able to pass a general [teachers'] pension law for the entire State.

NATHAN C. SCHAEFFER, *State Superintendent of Public Instruction.*

*South Dakota.*—Thus far South Dakota has made no provision for teachers' pensions. The matter has been discussed in the State legislature at different times, but no act has been passed making any provision whatever for teachers who have devoted the best part of their lives to the State's service. We have, therefore, no pension system of any kind operating under State management.

C. H. LUGG, *State Superintendent of Public Instruction.*

*Texas.*—Texas has never enacted any laws relative to teachers' pensions or retirement funds. In so far as I know there are no school communities in this State that have in operation any such plan.

W. F. DOUGHTY, *State Superintendent of Education.*

*Utah.*—While the law under which the teachers' retirement association was organized was passed in 1913, the actual organizing of the association did not take place until 1915. It is not possible, so soon after the organization, to say just how the law will be received.

E. G. GOWANS, *State Superintendent of Public Instruction.*

*Virginia.*—The investment of the permanent pension fund is placed in the hands of the State board of education. All money collected is turned over to the second auditor of Virginia and is deposited by him with the State treasurer. Bonds belonging to the permanent fund are deposited with the second auditor for safekeeping. All money is disbursed by warrant, drawn on second auditor and signed by the president and secretary of the State board of education.

Our system has proved quite satisfactory and has been of great benefit to those teachers who have been forced to retire from active service.

R. C. STERNES, *State Superintendent of Public Instruction.*

*Washington.*—Our pension bill was voted down at the last session of the legislature; so that we have no law at all on school pensions. There is no city in our State that has a pension or retirement plan. We will continue our effort until we secure this legislation.

Mrs. JOSEPHINE C. PRESTON, *State Superintendent of Public Instruction.*

*Wisconsin.*—The law seems to be giving quite general satisfaction in the State and during the recent legislature there was a strong sentiment for retaining the law and strengthening it in such ways as were found necessary.

B. E. LOVELAND, *Secretary Teachers' Insurance and Retirement Fund.*

*Wyoming.*—Wyoming has no system of teachers' pensions in force either as a State institution or established locally in any county or community. There has been some agitation for the past few years looking toward the passage of some legislation which would create such a retirement fund, but as yet nothing definite has been accomplished.

EDITH K. O. CLARK, *State Superintendent of Public Instruction.*

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## **APPENDIX A.**

### **TYPICAL PENSION AND RETIREMENT LAWS.**

#### **MASSACHUSETTS <sup>1</sup> (1913).**

**SECTION 1.** The following words and phrases as used in this act, unless a different meaning is plainly required by the context, shall have the following meanings:

(1) "Retirement system" shall mean the arrangement provided in this act for payment of annuities and pensions to teachers.

(2) "Annuities" shall mean payments for life derived from contributions from teachers.

(3) "Pensions" shall mean payments for life derived from contributions from the Commonwealth.

(4) "Teacher" shall mean any teacher, principal, supervisor, or superintendent employed by a school committee, or board of trustees, in a public day school within the Commonwealth.

(5) "Public school" shall mean any day school conducted within this Commonwealth under the order and superintendence of a duly elected school committee, and also any day school conducted under the provisions of chapter 471 of the acts of the year 1911.

(6) "Regular interest" shall mean interest at 3 per cent per annum, compounded annually on the last day of December of each year.

(7) "Retirement board" shall mean the teachers' retirement board, as provided in section 4 of this act.

(8) "Retirement association" shall mean the teachers' retirement association, as provided in section 3 of this act.

(9) "Expense fund" shall mean the fund provided for in paragraph numbered 1 in section 5 of this act.

(10) "Annuity fund" shall mean the fund provided for in paragraph numbered 2 in section 5 of this act.

(11) "Pension fund" shall mean the fund provided for in paragraph numbered 3 in section 5 of this act.

(12) "School year" shall mean the 12 months from the 1st day of July of any year to the 30th of June next succeeding.

(13) "Assessment" shall mean the annual payments to the annuity fund by members of the association.

#### **ESTABLISHMENT OF A TEACHERS' RETIREMENT SYSTEM.**

**SEC. 2.** A teachers' retirement system shall be established on the 1st day of July 1914.

#### **TEACHERS' RETIREMENT ASSOCIATION.**

**SEC. 3.** A teachers' retirement association shall be organized among the teachers in the public schools as follows:

(1) All teachers, except those specified in paragraph (3) of this section, who enter the service of the public schools for the first time on or after July 1, 1914, shall become thereby members of the association.

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<sup>1</sup> Contributory plan.

(2) All teachers, except those specified in paragraph (3) of this section, who shall have entered the service of the public schools before June 30, 1914, may, at any time between July 1, 1914, and September 30, 1914, upon application in writing to the commissioner of education, become members of the retirement association. Any teacher failing to do so may thereafter become a member of the retirement association by paying an amount equal to the total assessments, together with regular interest thereon, that he would have paid if he had joined the retirement association on September 30, 1914.

(3) Teachers in the service of the public schools of the city of Boston shall not be included as members of the retirement association.

#### STATE TEACHERS' RETIREMENT BOARD.

SEC. 4. (1) The management of the retirement system is hereby vested in the teachers' retirement board, consisting of seven members—the insurance commissioner for the Commonwealth, the bank commissioner for the Commonwealth, the commissioner of education for the Commonwealth, three members of the retirement association, and one other person. Upon organization of the retirement association the members thereof shall elect from among their number, in a manner to be approved by the insurance commissioner, the bank commissioner, and the commissioner of education, three persons to serve upon the retirement board, one member to serve for one year, one for two years, and one for three years; and thereafter the members of the retirement association shall elect annually from among their number, in a manner to be approved by the retirement board, one person to serve upon the retirement board for the term of three years. The seventh member of the retirement board shall be elected annually by the other six to serve for the term of one year. On a vacancy occurring on the board, a successor of such person whose place has become vacant shall be chosen in the same manner as his predecessor to serve until the next annual election. Until the organization of the retirement association and the election of three representatives therefrom, the insurance commissioner, the bank commissioner, and the commissioner of education shall be empowered to perform the duties of the retirement board.

(2) The members of the retirement board shall serve without compensation, but they shall be reimbursed from the expense fund of the retirement association for any expenditures or loss of salary or wages which they may incur through serving on the board. All claims for reimbursement on this account shall be subject to the approval of the governor and council.

(3) The retirement board shall have power to make by-laws and regulations not inconsistent with the provisions of this act, and to employ a secretary who shall give a bond in such amount as the board shall approve, and clerical and other assistance as may be necessary. The salaries shall be fixed by the board, with the approval of the governor and council.

(4) The retirement board shall provide for the payment of retirement allowances and such other expenditures as are required by the provisions of this act.

(5) The retirement board shall adopt for the retirement system one or more mortality tables, and shall determine what rates of interest shall be established in connection with such tables, and may later modify such tables or prescribe other tables to represent more accurately the expense of the retirement system, or may change such rates of interest, and may determine the application of the changes made.

(6) The retirement board shall perform such other functions as are required for the execution of the provisions of this act.

## CREATION OF FUNDS.

SEC. 5. The funds of the retirement system shall consist of an expense fund, an annuity fund, and a pension fund.

(1) The expense fund shall consist of such amounts as shall be appropriated by the general court from year to year on estimates submitted by the retirement board to defray the expense of the administration of this act, exclusive of the payment of retirement allowances.

(2) The annuity fund shall consist of assessments paid by members of the retirement association and interest derived from investments of the annuity fund. Each member of the retirement association shall pay into the annuity fund, by deduction from his salary in the manner provided in section 9, paragraph 5, of this act, such assessments upon his salary as may be determined by the retirement board. The rate of assessment shall be established by the retirement board on the first day of July of each year after a prior notice of at least three months, and shall at any given time be uniform for all members of the retirement association, and shall not be less than 3 per cent nor more than 7 per cent of the members' salary: *Provided, however,* That when the total sum of assessments on the salary of any member at the rate established by the retirement board would amount to more than \$100 or less than \$35 for any school year, such member shall in lieu of assessments at the regular rate be assessed \$100 a year or \$35 a year as the case may be, payable in equal installments to be assessed for the number of months during which the schools of the community in which such member is employed are commonly in session. Any member of the retirement association who shall for 30 years have paid regular assessments to the annuity fund as provided herein, shall be exempt from further assessments; but such member may thereafter, if he so elects, continue to pay his assessments to the fund. No member so electing shall pay further assessments after the total sum of assessments paid by him shall at any time have amounted, with regular interest, to a sum sufficient to purchase an annuity of \$500 at age 60; and interest thereafter accruing shall be paid to the member at the time of his retirement.

(3) The pension fund shall consist of such amounts as shall be appropriated by the general court from time to time on estimates submitted by the retirement board for the purpose of paying the pensions provided for in this act.

## PAYMENT OF RETIREMENT ALLOWANCES.

SEC. 6. (1) Any member of the retirement association may retire from service in the public schools on attaining the age of 60 years, or, at any time thereafter, if incapable of rendering satisfactory service as a teacher, may, with the approval of the retirement board, be retired by the employing school committee.

(2) Any member of the retirement association on attaining the age of 70 years shall be retired from service in the public schools.

(3) A member of the retirement association after his retirement under the provisions of paragraphs numbered (1) or (2) of this section, shall be entitled to receive from the annuity fund, as he shall elect at the time of his retirement, on the basis of tables adopted by the retirement board—(a) An annuity payable in quarterly payments, to which the sum of his assessments under section 5, paragraph (2), with regular interest thereon, shall entitle him; or (b) an annuity of less amount, as determined by the retirement board for the annuitants electing such option, payable in quarterly payments, with the provision that if the annuitant dies before receiving payments equal to the sum of his assessments under section 5, paragraph (2), with regular interest, at the time of his retirement, the difference between the total amount of said payments and the amount of his contributions with regular interest shall be paid to his legal representatives.

(4) Any member of the retirement association receiving payments of an annuity as provided in paragraph numbered (3) of this section shall, if not rendered ineligible therefor by the provisions of section 12 of this act, receive with each quarterly payment of his annuity an equal amount to be paid from the pension fund as directed by the retirement board.

(5) Any teacher who shall have become a member of the retirement association under the provisions of paragraph numbered (2) of section 3, and who shall have served 15 years or more in the public schools of the Commonwealth, not less than five of which shall immediately precede retirement, shall, on retiring as provided in paragraphs (1) and (2) of this section, be entitled to receive a retirement allowance as follows: (a) Such annuity and pension as may be due under the provisions of paragraphs numbered (3) and (4) of this section; (b) an additional pension to such an amount that the sum of this additional pension and the pension provided in paragraph (4) of this section shall equal the pension to which he would have been entitled under the provisions of this act if he had paid 30 assessments on his average yearly wage for the 15 years preceding his retirement and at the rate in effect at the time of his retirement: *Provided*, (1) That if his term of service in the Commonwealth shall have been over 30 years the thirty assessments shall be reckoned as having begun at the time of his entering service and as drawing regular interest until the time of retirement; *And further provided*, (2) that if the sum of such additional pension together with the annuity and pension provided for by paragraphs numbered (3) and (4) of this section is less than \$300 in any one year, an additional sum sufficient to make an annual retirement allowance of \$300 shall be paid from the pension fund.

(6) If at any time it is impossible or impracticable to consult the original records as to wages received by a member during any period, the retirement board shall determine the pension to be paid under paragraph numbered (5) (b) of this section in accordance with the evidence they may be able to obtain.

#### WITHDRAWAL AND REINSTATEMENT.

SEC. 7. (1) Any member of the retirement association withdrawing from service in the public schools before becoming eligible to retirement shall be entitled to receive from the annuity fund all amounts contributed as assessments, together with regular interest thereon, in the manner hereinafter provided.

(2) If such withdrawal shall take place before 10 annual assessments have been paid, the total amount to which such member is entitled as determined by the retirement board under the provisions of this act shall be paid to him in four annual installments.

(3) If such withdrawal shall take place after 10 annual assessments have been paid the amount so refunded shall be in the form of such annuity for life based on the contributions of such member, together with regular interest thereon, as may be determined by the retirement board according to its annuity tables, or in four annual installments, as such members may elect.

(4) If a member of the association withdrawing and receiving payments in accordance with paragraphs numbered (2) and (3) of this section, shall die before the amount of such payments equals the amount of his contributions to the annuity fund with regular interest, the difference between the amount of such payments and the amount of his contributions with regular interest shall be paid to his legal representatives.

(5) Any member of the retirement association who shall have withdrawn from service in the public schools shall, on being reemployed in the public schools, be reinstated in the retirement association in accordance with such plans for reinstatement as the retirement board shall adopt.

(6) If a member of the retirement association shall die before retirement, the full amount of his contributions to the annuity fund with regular interest to the day of his death shall be paid to his legal representatives.

## TAXATION, ATTACHMENTS, AND ASSIGNMENTS.

SEC. 8. That portion of the salary or wages of a member deducted or to be deducted under this act, the right of a member to an annuity or pension, and all his rights in the funds of the retirement system shall be exempt from taxation, and from the operation of any laws relating to bankruptcy or insolvency, and shall not be attached or taken upon execution or other process of any court. No assignment of any right in or to said funds shall be valid. The funds of the retirement system, so far as invested in personal property, shall be exempt from taxation.

## DUTIES OF THE SCHOOL COMMITTEE.

SEC. 9. (1) The school committee of each town and city in the Commonwealth shall, before employing in any teaching position any person to whom this act may apply, notify such person of his duties and obligations under this act as a condition of his employment.

(2) On or before October 1 of each year the school committee of each town and city in the Commonwealth shall certify to the retirement board the names of all teachers to whom this act shall apply.

(3) The school committee of each town and city in the Commonwealth shall, on the first day of each calendar month, notify the retirement board of the employment of new teachers, removals, withdrawals, changes in salary of teachers, that shall have occurred during the month preceding.

(4) Under the direction of the retirement board the school committee of each town or city in the Commonwealth shall furnish such other information as the board may require relevant to the discharge of the duties of the board.

(5) The school committee of each town and city in the Commonwealth shall, as directed by the retirement board, deduct from the amount of the salary due each teacher employed in the public schools of such city or town such amounts as are due as contributions to the annuity fund as prescribed in this act, shall send to the treasurer of said town or city a statement as voucher for such deductions, and shall send a duplicate statement to the secretary of the retirement board.

(6) The school committee of each town and city in the Commonwealth shall keep such records as the retirement board may require.

## DUTIES OF BOARDS OF TRUSTEES.

SEC. 10. In administering this act for the benefit of teachers in schools conducted in accordance with chapter 471 of the acts of the year 1911, the boards of trustees of said schools are hereby authorized and required to perform all the duties prescribed for school committees under this act.

## CUSTODY AND INVESTMENT OF FUNDS.

SEC. 11. (1) The treasurer of each town or city in the Commonwealth on receipt from the school committee or board of trustees of the voucher for deductions from the teachers' salaries provided for in section 9 shall transmit, monthly, the amounts specified in such voucher to the secretary of the retirement board.

(2) The secretary of the retirement board shall monthly pay to the treasurer of the Commonwealth all sums collected by him under the provisions of paragraph (1).

(3) All funds of the retirement system shall be in custody and charge of the treasurer of the Commonwealth, and the treasurer shall invest such funds as are not required for current disbursements in accordance with the laws of the Commonwealth governing the investment of sinking funds. He may, whenever he sells securities, deliver the securities so sold upon receiving the proceeds thereof, and may execute any or all documents necessary to transfer the title thereto.

(4) The treasurer of the Commonwealth shall make such payments to members of the retirement association from the annuity fund and pension fund as the retirement board shall order to be paid in accordance with sections 6 and 7 of this act.

(5) On or before the third Wednesday in January the treasurer of the Commonwealth shall file with the insurance commissioner for the Commonwealth and with the secretary of the retirement board a sworn statement exhibiting the financial condition of the retirement system on the 31st day of the preceding December and its financial transactions for the year ending at such date. Such statement shall be in the form prescribed by the retirement board and approved by the insurance commissioner.

#### MEMBERSHIP IN OTHER RETIREMENT ASSOCIATIONS.

SEC. 12. (1) No person required to become a member of the association under the provisions of paragraph (1) of section 3 of this act shall be entitled to participate in the benefits of any other teachers' retirement system, supported in whole or in part by funds raised by taxation, or to a pension under the provisions of chapter 498 of the acts of the year 1908, or chapter 589 of the acts of the year 1908, as amended by chapter 617 of the acts of the year 1910.

(2) No member of the retirement association shall be eligible to receive any pension as described in section 6 of this act who is at the time in receipt of a pension paid from funds raised in whole or in part from taxation under the provisions of chapter 498 of the acts of the year 1908, or chapter 589 of the acts of the year 1908, as amended by chapter 617 of the acts of the year 1910, or of any other act providing pensions for teachers, providing that this paragraph shall not be construed as applying to the Boston Teachers' Retirement Fund Association.

#### REIMBURSEMENT OF CITIES AND TOWNS.

SEC. 13. (1) Whenever, after the 1st day of July, 1914, a town or city retires a teacher who is not eligible to a pension under the provisions of section 6, paragraph (4) of this act, and pays to such teacher a pension in accordance with chapter 498 of the acts of the year 1908, or chapter 589 of the acts of the year 1908, as amended by chapter 617 of the acts of the year 1910, and the school committee of said town or city certifies under oath to the retirement board to the amount of said pension, said town or city shall be reimbursed therefor annually by the Commonwealth: *Provided*, That no such reimbursement shall be in excess of the amount, as determined by the retirement board, to which said teacher would have been entitled as a pensioner, had he become a member of the retirement association under the provisions of section 3, paragraph (2) of this act.

(2) On or before the first Wednesday of January of each year the retirement board shall present to the general court a statement of the amount expended previous to the preceding 1st day of July by cities and towns in the payment of pensions under the provisions of the preceding paragraph, for which such cities and towns should receive reimbursement. On the basis of such a statement the general court may make an appropriation for the reimbursement of such cities and towns up to such 1st day of July.

#### JURISDICTION OF COURT.

SEC. 14. The superior court shall have jurisdiction in equity upon petition of the insurance commissioner or of any interested party to compel the observance and restrain the violation of this act and of the rules and regulations established by the retirement board hereunder.

## REFERENDUM AND REPEAL.

SEC. 15. Upon the petition of not less than 5 per cent of the legal voters of any city or town that has adopted chapter 498 of the acts of the year 1908, this question shall be submitted, in case of a city, to the voters of such city at the next city election, and, in case of a town, to the voters of such town at the next annual town meeting, and the vote shall be in answer to the question to be placed upon the ballot: "Shall an act passed by the general court in the year 1908, entitled 'An act to authorize cities and towns to establish pension funds for teachers in the public schools,' be repealed?" and if a majority of the voters thereon at such election or meeting shall vote in the affirmative, said act shall be repealed in such city or town.

SEC. 16. So much of chapter 498 of the acts of the year 1908 as authorizes its submission to the voters of a city or town for acceptance after the passage of this act is hereby repealed.

SEC. 17. This act shall take effect upon its passage.

MINNESOTA<sup>1</sup> (1915).

SECTION 1. The word teacher as used in this act shall include any teacher, supervisor, principal, superintendent, or certified librarian employed in any educational or administrative capacity in the public schools of Minnesota, or in any educational, correctional, or charitable institution supported wholly or in part by this State, excepting those employed in the University of Minnesota. The term "Member of the fund association," wherever used in this act, shall mean and include every teacher (as herein defined), who shall contribute to the Teachers' Insurance and Retirement Fund by the payment of the dues hereinafter provided by this act.

SEC. 2. For the purpose of better compensating the teachers in the public schools and making the occupation of "teacher" in this State more attractive to qualified persons, there is hereby established for the State a fund to be known as the "Teachers' insurance and retirement fund," for the benefit of teachers who have served not less than 20 years except as hereinafter provided. Said fund shall be secured from the following sources:

First. From assessments on the members of the fund association according to the following schedule: For the first five years of teaching service, \$5 per year; for the second five years, \$10 per year; for the next ten years, \$20 per year; for the next five years, \$30 per year. *Provided*, That when the regular annual salary as teacher of any member of the fund association shall have reached \$1,500 or more said member shall be assessed upon a percentage basis as follows: One and one-half per centum per annum, but not more than \$20 per year, for the first ten years of service as a teacher; and 2 per centum per annum, but not more than \$40 per year, for each successive year of service as teacher: *Provided*, That in no case shall the annual assessments based on a percentage rate be less for any year than the flat rate assessments for a single year of the corresponding period, said assessment period to cover not more than 25 years in all, after which all assessments shall cease.

Second. From all money and property received as donations, gifts, legacies, devises, bequests, or otherwise for the benefit of said teachers' insurance and retirement fund.

Third. From all interest arising from investments of the money belonging to said fund.

Fourth. From a tax of one-twentieth of 1 mill, which is hereby levied annually on all the taxable property located in that part of the State subject to the provisions of this act, after the valuation of said property has been equalized by the State; said tax to

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<sup>1</sup> Contributory plan.



be collected by the same officials and at the same time and in the same manner as other taxes in said State, all moneys received from the tax hereby levied to be paid into and become a part of the said teachers' insurance and retirement fund.

The assessments upon the members of the fund association hereinbefore referred to shall be paid in as many equal monthly payments as there are months in the school year for which the teachers' salaries are paid, and such assessments shall be deducted by the several boards of education or managing bodies from the salaries of teachers as hereinafter provided.

Credit on period of service may be allowed to applicants for membership for periods of employment prior to the taking effect of this law; but in such case the applicant must pay arrearages at the above rates for the period of service for which credit is so allowed under rules to be adopted by the board of trustees, hereinafter referred to, and the rules adopted by said board shall be uniform in their operation as to all persons affected. In case any teacher has retired for any cause before he or she has paid in fees a sum equal to the full amount of fees required for the annuity applied for and to which such teacher is entitled by period of service, there shall be deducted from the first year's annuity to such teacher such sum as will make the total amount paid by said teacher equal to the full amount of said fees.

SEC. 3. It is hereby made the duty of each board of education or managing body required by law to draw the warrants or orders for payment of salaries of teachers to deduct and withhold from each month's salary due to such teacher the amount which such teacher is required to pay into said insurance and retirement fund as herein specified, and at the time of such deduction a statement showing the amount of such deduction shall be furnished to such teacher.

Such board of education or other managing body shall, between the 1st and 15th of January and between the 1st and 15th of July of each year, forward to the treasurer of the county in which such school district is situated a statement, verified by the secretary or clerk thereof, showing the amount of money so retained from each teacher in accordance with the provisions of this act, and with said statement shall transmit the entire amount so retained to the treasurer of said county; and in case any school district is situated in more than one county such report and remittance shall be sent to the senior county. Said board of education or other managing body shall also, on or before the 15th day of July of each year, transmit to the county superintendent a statement showing the name of each teacher, the number of months of school taught during the year for which the statement is made, the number of months which constitute a school year in said district or institution, and the total amount withheld from the salary of each teacher for the school year preceding, showing also the number of years each of said teachers has taught in the public schools of that district. If no teacher in such public school or other educational institution comes under the provisions of this act said report shall state such fact and shall be verified by the oath of the clerk or secretary. The failure of any member of a school board, board of education, or other body having the management of any educational institution to perform any of the duties herein required of them shall be a misdemeanor.

Each county superintendent shall, each year on or before the 1st day of September, report under oath to the board of trustees of the State teachers' insurance and retirement fund, giving an itemized summary of the statements received by him from the school boards and other educational managing bodies, showing the total amount withheld from the salaries of teachers in said county for the benefit of said insurance and retirement fund. Between the 15th and 30th day of January and between the 15th and 30th day of July of each year the county treasurer of each county shall transmit to the State treasurer all moneys received from the boards of education or other managing bodies of school districts or other educational institutions, in accordance with the provisions of this act, and shall certify under oath to the correctness of the amount so received and transmitted. The State treasurer shall credit all moneys received

under the provisions of this act to the State teachers' insurance and retirement fund: *Provided however*, That the State treasurer, the several county treasurers, and the treasurers of the various school districts shall be officially liable for the receipt, handling, and disbursement of all moneys coming into their hands belonging to the said State teachers' insurance and retirement fund, and the securities on the official bonds of each of said treasurers shall be liable for such money the same as for all other moneys belonging to the school funds of this State.

SEC. 4. The management of the fund shall be vested in a board of five trustees, which shall be known as the "board of trustees of the teachers' insurance and retirement fund." Said board shall be composed of the following persons: The State superintendent of education, the State auditor, the attorney general, and two members of the fund association, who shall be elected by the members of the fund association at the time and place of the annual meeting of the Minnesota educational association and shall serve for the term of two years, beginning on the first Monday of January next succeeding their election, except in the case of the first elective members, who shall assume office immediately after their election and serve—one for one year and one for two years—from the first Monday of January next succeeding their election and until their successors are elected. Vacancies in the elective membership of the board shall be filled by appointment by said board of trustees, the appointee to serve until the next meeting of the fund association, when the members of said fund association shall elect a trustee or trustees to serve for the unexpired term or terms. No person shall be appointed by the board of trustees or elected by the members of the fund association as a member of the board of trustees who is not a member of the fund association at the time of the appointment or election.

In the interval between the passage of this act and the time when the first elective members of the board of trustees shall assume office, as hereinbefore provided, the superintendent of education, the State auditor and the attorney general shall constitute a temporary board of trustees of the teachers' insurance and retirement fund and shall be empowered to perform the duties of said board.

Said board of trustees shall have power to frame by-laws for its own government, not inconsistent with the laws of the State, and to modify them at pleasure; to elect one of its own members as president of the board and to provide and enforce all rules and regulations necessary to carry into effect the provisions of this act; to elect a secretary, who shall serve during the pleasure of the board, and to fix the salary and prescribe the duties of the office of secretary; to authorize the issuance of warrants by the State auditor on the State treasurer for the payment out of said fund of all annuities or benefits payable under the provisions of this act, of the salary of the secretary, and other necessary expenses.

All applications for annuities or benefits under this act must be made to said board. In passing upon said applications said board may summon witnesses and, in the case of applications founded on disability, may require any applicant to submit to a medical examination at his or her own expense and, in the case of all applicants, may conduct any reasonable investigation to determine the justice of any claim submitted. It may sue or be sued in the name of the board of trustees of the teachers' insurance and retirement fund, and in all actions brought by or against it said board shall be represented by the attorney general. Said board shall constitute a part of the State government, but in any action brought against it by any person claiming to be a beneficiary of said teachers' insurance and retirement fund it shall not claim immunity from suit.

It shall be the duty of said board to invest as much of the funds in its hands as shall not be needed for current purposes. Such investments shall be made in the same class of securities as those in which the school funds of the State are required to be invested, and all securities taken upon such investments shall be deposited with the

State treasurer; but in case of necessity such securities may be sold in order to raise money for current purposes. No such sale shall be made except by the unanimous vote of said board, such vote to be entered upon the records of its proceedings. All interest obtained from such investments shall be placed in the general fund, to be used for current purposes. A suitable office in the capitol, with suitable furniture and necessary office supplies, shall be provided by the proper State officer for the use of said board of trustees.

SEC. 5. The board of trustees shall meet annually at the office of the secretary, in the State capitol, on the second Saturday in September, at an hour to be fixed by the board. Special meetings may be held at any time on the call of the president of said board or by any three members thereof. The State auditor, State superintendent of education, and attorney general shall serve as members of said board without additional compensation, but the elective members of said board shall be entitled to compensation at the rate of \$5 per day and necessary expenses while attending all meetings of said board, to be paid out of the insurance and retirement fund.

SEC. 6. The fiscal year of the insurance and retirement fund shall begin on the 1st day of August and shall end on the 31st day of July. The board of trustees shall present annually to the fund association at its annual meeting hereinafter provided for, a report of the condition of said funds for the last preceding year, which shall include the receipts and expenditures on account of the fund, together with a list of the beneficiaries thereof and of the securities in which said fund is invested. A copy of said report shall be sent to the governor, a copy shall be retained by the State superintendent of education, and a copy sent to each county superintendent, city superintendent, graded school principal, and the superintendent or president of each State educational institution. This report shall be published in the biennial report of the State superintendent of education.

SEC. 7. The treasurer of the State shall be ex officio treasurer of the teachers' insurance and retirement fund, and his general bond to the State shall cover any liabilities for his acts as treasurer of said fund. He shall receive all moneys payable to said fund and pay out the same only on warrants issued by the State auditor upon vouchers signed by the president and secretary of the board of trustees. Said treasurer shall give receipts for all moneys received by him for said fund, shall keep full and correct account of the financial transactions connected therewith, and shall make an annual report to the board of trustees at its annual meeting of the receipts and disbursements and other financial transactions connected with said fund.

SEC. 8. Any person employed as teacher, when this act takes effect, in any public school in this State or in any other educational institution included in section 1 of this act shall be permitted to become a member of the fund association and to receive the benefits of this act, if application be made in writing to the board of trustees of the teachers' insurance and retirement fund on or before September 1, 1917. At the time of making application to the board of trustees as herein provided, such teachers shall notify the local school board or managing body of the institution in which he or she is employed, in writing, of his or her election to come within the provisions of this act, and shall authorize said board or managing body as a part of said notice to deduct or withhold on every pay day from his or her salary the amount which he or she would pay into the fund, as specified in section 2.

Any person who shall accept employment in this State as a teacher, as hereinabove defined, after September 1, 1915, and who shall not have been employed in this State at the time this act takes effect, shall by virtue of the acceptance of such employment become subject to all terms, provisions, and conditions of this act, and shall become a member of the fund association.

SEC. 9. Any member of the fund association who shall have rendered 20 years or more of service as a teacher in the public schools, 1 year of which may have been a leave of absence for study, and at least 15 years of which, including the last 5 immediately

preceding the term of retirement, have been spent in the public schools of this State, and who ceases to be employed as a teacher for any reason, shall be retired at his or her own request by the board of trustees and receive an annuity in accordance with the following schedule:

For 20 years of service, \$350; for 21 years of service, \$380; for 22 years of service, \$410; for 23 years of service, \$440; for 24 years of service, \$470; for 25 years of service, \$500.

In computing the time of service of a teacher the length of the legal school year in the district or institution where such service was rendered shall constitute a year, provided such a year shall not be less than seven months. In a calendar year credit shall be allowed for only one year of service. If a teacher teaches for only a fractional part of any year, credit shall be given for such fractional part of a year as the term of service rendered shall bear to the legal school year of such district or institution, but in no case shall the legal year be less than seven months.

Such annuities shall be paid quarterly.

Any teacher who shall become mentally or physically incapacitated after having served as teacher for 15 years, 10 of which shall have been in this State, shall be entitled to receive an annual benefit from the insurance and retirement fund equal to as many twentieths of the full annuity for 20 years as the term of total service rendered by such teacher bears to 20 years.

Any person retiring under the provisions of this section may return to the work of teaching in said public schools, but during said term of teaching the annuity or benefit paid to such person shall cease. Said annuity shall again be paid to such person upon his or her further retirement.

SEC. 10. In the event that any member of the fund association ceases to be a teacher in the State and thereby terminates membership in the fund association before drawing an annuity, such member shall, if application be made in writing to the board of trustees within six months after his or her resignation, be entitled to the return of the fund without interest of such sum as shall equal one-half of all moneys paid into the fund by such teacher: *Provided further*, That in the event such teacher subsequently returns to teaching in Minnesota and thereby becomes a member of said association, such teacher shall be required to refund to said insurance and retirement fund the amount so drawn with interest thereon at the rate of 5 per cent per annum, such sum to be refunded within one year from his or her return. In case of the death of any member of this fund association before an annuity shall have been drawn from said fund, the board of trustees shall refund to his or her estate, heirs, or assigns an amount equal to one-half that actually paid into the fund by said member.

SEC. 11. The annuity so created shall not be subject to assignment or seizure on legal process against any beneficiary.

SEC. 12. The board of trustees may ratably reduce the annuities provided in this act whenever, in the judgment of the board, the condition of the fund shall require such reduction.

SEC. 13. Annuities may be granted by the board of trustees at any time after the passage of this act, such annuities beginning at the date on which the grant is made, but no payments shall be made before September 1, 1916.

SEC. 14. At the time and place of the meeting of the Minnesota educational association in 1915, those teachers who have qualified as members of the fund association by complying with the provisions of section 8 of this act shall meet at the call of the State superintendent of education for the purpose of electing from said members of the fund association two members of the board of trustees of the teachers' insurance and retirement fund, as hereinbefore provided, and annually thereafter at the time and place of the annual meeting of the Minnesota Educational Association the board of trustees shall call a meeting of the members of the fund association for the

purpose of electing one or more members, as may be required, of said board of trustees, and hearing the annual report of said board, and of transacting any other business that may properly come before said meeting.

Sec. 15. This act shall not apply to any city of the first class in this State.

#### NEW HAMPSHIRE<sup>1</sup> (1915).

SECTION 1. Any woman who, being on the 1st day of September, 1915, or thereafter, of the age of 55 years, and who for 30 years shall have been employed as a teacher in the public schools of this or some other State, or in such other schools in this or some other State as are supported wholly or in part by State or town or school district appropriation and are under public management and control, 15 years of which employment, including the 10 years preceding her ceasing to teach, shall have been in some of the before-mentioned schools of this State, and who shall have been retired, or shall voluntarily have retired, from active service, shall, upon her formal application directed to the State superintendent of public instruction, and upon the certification by the said superintendent to the governor and council, as hereinafter provided, receive from the State for the year ending August 31, 1916, or for such part of said year as she may be so retired, a pension at the rate for the full year of 50 per cent of the average annual salary of such teacher for the five years last preceding her ceasing to teach. In figuring such average, deductions from the teacher's pay for absence or other causes during said five years' period shall be considered as a part of teacher's salary.

Sec. 2. Retired male teachers shall receive pensions upon the same terms as those set forth for women in this act: *Provided, however*, That any man, to be entitled to receive the full pension, must be of the age of 60 years and must have taught 35 years.

Sec. 3. No person shall receive a pension under the terms of this act unless such person shall, at the time of application for such pension, hold a State teacher's certificate or a service certificate issued under the authority of chapter 49, Laws of 1895, and amendments thereto, or a similar certificate issued by the chief educational officer of another State or country having standards of certification equivalent to those of this State: *Provided*, That this limitation as to certification shall not apply to teachers who have permanently ceased to teach before the passage of this act.

Sec. 4. Any retired teacher of the required age who shall before ceasing to teach have taught 15 years in this State, including 10 years immediately preceding such ceasing to teach, but shall not have taught in all for 35 years, in the case of a man, or 30 years in the case of a woman, shall be entitled to such proportion of the full pension herein provided as the actual total number of years taught bears to 35 in the case of a man or to 30 in the case of a woman.

Sec. 5. Any teacher forced to retire because of physical or mental disability before reaching the age of 60, if a man, or of 55 if a woman, shall, if otherwise entitled to a pension under the provisions of this act, receive a pension based upon the proportion of the full pension which the total number of years taught, plus the number of years of enforced retirement, bears to 35 in the case of a man, or to 30 in the case of a woman, not exceeding, however, the full pension.

Sec. 6. In computing the number of years of actual service of any teacher before retirement, no deduction shall be made for leaves of absence during sickness or disability, provided after such sickness or disability the teacher resumed teaching; but deduction shall be made for time the teacher is engaged in some other gainful occupation.

Sec. 7. The State superintendent of public instruction shall, on or before the 1st day of August, 1915, subject to the approval of the governor and council, formulate rules and regulations for carrying into effect the provisions of this act, and shall give such publication to the same as he may deem desirable. But the unsupported statement

<sup>1</sup> Noncontributory plan.

of the applicant for a pension, whether sworn or unsworn, shall not be considered as proof of any fact necessary to determine the eligibility of the applicant to receive such pension.

SEC. 8. The State superintendent of public instruction shall investigate all applications received for a pension under the provisions of this act and shall, on or before the 30th day of November, 1915, and quarterly thereafter, certify to the governor and council the names of the persons who are entitled to pensions under the provisions of this act, and the governor, with the advice and consent of the council, shall draw warrants on the State treasurer for payment of the pensions in favor of said persons. Such payments shall be made in quarterly installments. In case one-quarter of the appropriation herein made, less expense of administration, shall be insufficient to pay the quarterly installments of all of the persons certified to the governor and council as entitled thereto, the governor, with the advice and consent of the council, shall draw warrants to the amount of only one-quarter of the appropriation, less expenses of administration, preference being given to those certified as entitled in the order of their age.

SEC. 9. Every pension shall terminate upon the death of the recipient, and the proportional part of the pension due at the time of such death shall be paid to the legal representative of the deceased.

SEC. 10. All pensions granted or payable under the provisions of this act shall be and are hereby made exempt from levy upon execution and from attachment upon trustee process.

SEC. 11. The sum of \$10,000 is hereby appropriated for the fiscal year ending August 31, 1916, to carry out the provisions of this act.

SEC. 12. This act shall take effect upon its passage.

Approved April 21, 1915.

## APPENDIX B.

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### TEACHERS' PENSIONS.<sup>1</sup>

By CLYDE FURST,

*Secretary Carnegie Foundation for the Advancement of Teaching.*

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The fundamental principles of a pension system may be stated briefly. Only those, however, who have studied the great mass of pension literature are likely to give full acceptance to them at once. It is not easy to understand, for example, that a non-contributory pension is the most costly to the beneficiary—that free pensions, paid by a government or other agency, are in the long run so expensive that the individual can not afford to trust his future to them.

Among those, however, who have given thorough study to pensions, from the standpoint of the needs of those whom the systems are intended to serve, and who have followed the history of the breakdown of one system after another, there is practical agreement that the following fundamental principles are applicable to all pension systems which involve large groups.

I. A pension is but one feature of the relief system needed by any given group. Only a minority of those who become teachers, or government employees, or machinists, will live to enjoy a pension, however provided. A relief system must be planned with special reference to the group it is intended to serve. Among railroad employees the risk of accident is greater than among teachers. Sickness is a risk common to teachers and railroad employees, but teachers are better able to deal with it as individuals. In general, a relief system will undertake only those capital risks of life which can best be met by cooperative effort. In the case of teachers death, dependence in old age, and disability are such risks.

II. A pension system can be operated successfully only in a fairly homogeneous group; that is to say, when the members of the group live under like conditions, are subject to similar risks, and have rates of pay which are comparable.

III. A relief system, to accomplish its purpose, must include practically all members of the group. Otherwise those who most need its benefits are least likely to enjoy them.

IV. Two plans have been followed in the establishment of pension systems for large groups:

*The Reserve Plan*, under which the necessary reserve for each beneficiary is set aside year by year. This, with the accumulated interest, will provide the pension when it may become due.

*The Cash Disbursement Plan*, under which pensions are simply paid out of current funds such as those provided by government appropriations or from an endowment.

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<sup>1</sup> Read before the National Education Association, New York, July 6. Reprinted here from "School and Society," Vol. IV, No. 83, pp. 154-159, July 29, 1916.

The same pension benefits may be paid under both plans, but the cost under the reserve plan is measured by the percentage of the pay roll necessary to accumulate future pensions, while the cost under the cash disbursement plan is measured by the percentage of the annual pay roll required for the full pension benefits. The cost under the reserve plan is a constant factor, which in the case of a college teacher would entail a payment of from 4 to 5 per cent of his pay by the teacher and by the college. The cost under the cash disbursement plan is a changing and constantly increasing factor which may eventually amount to 20 per cent of the active pay roll or more. The reserve plan adapts itself to a contributory pension, the cash disbursement plan to a free pension paid without the participation of the beneficiary.

V. Systems offering a free pension upon the cash disbursement plan have repeatedly broken down through their great cost, unless upheld by the resources of a government. Even in governmental pensions the cost has mounted to such proportions as to endanger the permanency of the system. Under a free pension system every tendency is toward increase. No actuarial computation can take account of the charitable, political, and social influences which tend to increase the load. Experience shows also that the beneficiaries of a free pension system in time become dissatisfied, and claim that such pensions are merely deferred pay and that they benefit the few at the expense of the many.

VI. The employee entering his vocation and looking forward over a span of 30 to 40 years to the protection of a pension is most of all concerned in its security. If he is to plan his life upon the use of a pension at an agreed age, he desires above all absolute certainty that the pension will be ready at the date named. There is no way in which this can be assured except by setting aside year by year the reserve necessary to provide it. Nothing short of a contract providing this reserve will give him such security, and this he can get only by a participation in the accumulation of the reserve.

VII. A pension system on the reserve plan, sustained by joint contributions of employer and employee, is therefore not only the fairest and most equitable form of pension system, but it is the only one in which the cost can be ascertained in advance, in which the question of pension is separated from the question of pay, and it is the only form of pension which can be permanently secure. The man of 30, whether he be teacher, Government clerk, or industrial worker, can be sure of the pension promised 35 years in advance only when it rests upon this economic basis.

The justification of pensions for teachers, in particular, is economic, social, and educational. Economically the work of an organization is not effective unless there is a satisfactory method of retiring aged or infirm workers. Only a satisfactory pension system can prevent either the dismissal of aged or infirm teachers without resources or the sacrifice of the welfare of the pupils in order to continue the employment of teachers who are no longer capable of good work. Socially, men and women of character, intelligence, and devotion are willing to perform difficult social services that are poorly paid; but it is too much to expect them also to face old age and disability without the prospect of some protection. Educationally, there is great need to secure and retain able teachers in the schools. At present only about 5 per cent of the men and 15 per cent of the women who enter teaching make it a permanent career.

For all of these reasons the development of pension systems for teachers has been rapid and widespread in the United States. Ten were founded between 1890 and 1900; 25 between 1900 and 1910; and 31 between 1910 and 1915. More than half of our States now have some form of pensions for teachers.

The cost of a pension system for teachers may be borne by the teacher alone, by the public alone, or by the teacher and the public together. If the cost is borne by the teacher alone, he can scarcely afford, out of a small salary, to set aside enough money to purchase adequate protection, and the public fails to fulfill a plain obliga-



tion. If the cost is borne by the public alone, the money is really taken from the teachers' salaries without their agreement, cooperation is weakened, and the teachers suffer in independence and lose an incentive to personal thrift. When the cost is borne by the teachers and the public together, the teacher receives appropriate reward and protection, and both the teacher and the public meet an economic, social, and educational obligation. The principle of cooperation between the teacher and the public is recognized by most of the pension systems that are now in operation.

The application of the principle of cooperation, however, is not so satisfactory. Only a dozen systems relate the amount of the public contribution to that of the teacher. In these cases it ranges from one-half to three times that of the teacher, being usually an equal amount. Frequently public money is expected from sources which bear no relation to the amount of money needed for pensions. Excise, inheritance, license or transfer receipts, or deductions, fines, or forfeitures from teachers' salaries for absence or illness, or from tuitions of nonresident students, do not furnish a reliable basis for pensions. Equally unsatisfactory is the expectation of paying pensions, when they fall due, from current school or other funds, without any assurance that these funds will be adequate, or from special or general appropriations, without any certainty that such appropriations will be made. Indeed, it is not uncommon to limit in advance the sums that may be taken from such sources, thus reducing the proportion of the pension that can be paid, or leaving the whole question of payment largely to accident. Because of these facts, no teacher can be certain that any pension system now in existence will or can pay any pension that has been promised.

The only way in which security can be obtained is for the contribution of the public, as well as that of the teacher, to be paid in annually and set aside to accumulate against the time when it will be needed. This also is the only economical method. Any system which agrees to pay a pension from current funds after the teacher retires, plans to spend two or three times as much money for that pension as would be required if sums were set aside each year to accumulate it during the teacher's period of service.

Pension systems for teachers in the United States, moreover, are so organized at present that it is impossible for anybody to estimate the cost of any one of them. The probable length of life of a teacher in service or after retirement may be estimated with a fair degree of safety from the tables of mortality that have been developed by the life-insurance companies, although it begins to appear that teachers live longer than other people. Estimates of the likelihood of disability, however, and the probable length of life after retirement because of disability are still without an adequate basis. It will be a long while before reliable estimates can be made of the probability of being dismissed, or of resigning, or of the age at which one will choose to retire. It is quite certain that no one can predict what any teacher's salary will be 30, or 40, or 50 years hence, and yet practically all pensions are based to some extent upon the salary at the time of retirement.

The fact that no one of our existing pension systems is satisfactory is explained by their history. These systems are, for the most part, very new, and they have in the main imitated government systems, the great resources of which have caused the question of cost to be neglected. The difficulties of the English civil-service pensions in 1909, and the failure and the reorganization of those of New South Wales in 1912, however, proved that even a government can not afford a careless pension system. These difficulties and those of Porto Rico, New Jersey, Maryland, and Virginia, and of New York City, Indianapolis, Cincinnati, and Philadelphia, have greatly stimulated the study of pensions, with the result that we may hope to enter upon a sounder era.

There is, of course, a definite relation between pension benefits and pension costs. At present both teacher and public desire benefits that are impossibly expensive in return for contributions that are too small to provide even modest benefits. Some systems, for example, promise retirement after 20 years of service, or at the age of 50; in others teachers contribute only one-half of 1 per cent of their salaries; in yet others the public contributes only one-half as much as the teachers.

Such mistakes may easily be corrected by a very simple pension system, based upon the tables of mortality that are used by the life-insurance companies, and upon a safe rate of interest, with the provision that the teacher receives the benefit of all of his accumulations. We can tell in this way what certain desired benefits will cost, or what benefits can be had for whatever definite sum of money is available. It is very simple to estimate what any annual contribution, beginning at any age, and accumulating at a given percentage, will amount to after any number of years. If all of the money is deposited in a central fund each contributor can be guaranteed a definite annuity for life, since the lives of all are averaged in the standard mortality tables. Thus, an annual contribution of \$100 a year beginning at the age of 25 and accumulated at  $3\frac{1}{2}$  per cent interest will provide a man with an annuity for life, according to the McClintock table of mortality, of \$894 a year beginning at the age of 60, or of \$1,550 a year beginning at 65, or of \$2,959 a year beginning at 70. The annuities from such a contribution for women, who live longer than men, would be about three-fourths of the sums that have been mentioned.

If it is desired, for the sake of family protection, there may be, also, a return of the accumulations of the teacher who dies before retirement, and a return of the balance of the accumulations of the teacher who retires but dies before he has drawn all of his accumulations. This also can be calculated from the standard mortality and interest tables.

If, further, protection is desired against disability, this can be similarly provided, by the use of the best tables that we have, with the proviso that the rates for those who enter into the system in the future may be modified according to future experience.

Should it be desired finally to return part or all of the accumulations of those who withdraw from the system for any reason, this also can be provided for on the basis of the very limited withdrawal tables that are available, with the proviso that the rates for new entrants be adjusted periodically on the basis of accumulated experience.

The cost of each of these additional benefits has never been calculated separately, but it has been roughly estimated that the cost of an annuity alone is about doubled by adding the benefits of a proportionate annuity for life beginning with permanent disability at whatever age; and a guarantee of the return of all of the teacher's accumulations in case of withdrawal from the service, in case of death before retirement, or in case of death after retirement before all of his accumulations have been used.

A pension system of the kind that has been mentioned would be just and fair to all concerned, giving the teacher secure and adequate protection at a reasonable cost to himself and to the public. It would not be necessary to change the present form of administration, which is generally through a special board of five or seven persons, upon which the teachers and the public are about equally represented. It will be important, however, to have the actual work done by competent, full-time experts, under the supervision of the state banking and insurance departments.

According to such a plan all systems will provide for retirement on the basis of age, although only two-fifths of them do so at present. The age of retirement, which is now usually fixed, can be left to the teacher and the administration. If the need is great, retirement may be earlier, in spite of the fact that the smaller accumulations would then make the pension smaller. In general, retirement will, in all probability, be later than at present, because of the larger pension provided by the longer accumulation and the educational desirability of keeping the able teacher in service as long as possible.

Disability can be provided for by using whatever money has been accumulated at the time when retirement becomes unavoidable. Retirement on the basis of service alone is a luxury which neither the teacher nor the public appears to be willing or able to pay for. It is, moreover, educationally unfortunate in encouraging the withdrawal from service of experienced teachers at the time when they are doing their best work.

Those who are dependent upon the teacher may be better protected than at present, since the form of contribution will set up a contractual relation which may provide definite returns in case of withdrawal or death. Return of contribution in case of resignation is now generally provided for, but return in case of dismissal is provided for only by one-third of our systems, and return in case of death is provided for only by one-fifth. The amount of the accumulation that is returned now varies from one-half to the whole, and is usually without interest. Contractual arrangements for the return of contributions, also, will facilitate the transfer of the teacher from one system to another, which is desirable. Indeed, pension systems throughout the country would become practically uniform, so that the experience of each would help all.

Membership in the systems will need to be, as it usually is at present, required of all new teachers, at least for the minimum protection. For teachers already in service membership may be optional, although this constitutes one of the most difficult of all pension problems—that of properly providing for the retirement of teachers who have not contributed throughout their active service. Probably the best plan is to require the participation of all teachers toward a minimum protection, basing each teacher's contribution on the rate for his age at entering the service, and dividing the additional amount needed between the teachers and the public, so that the oldest teachers shall be helped most.

It remains only to say that the Carnegie Foundation is in the midst of the process of changing its own pension system to the form that has been outlined here and that it will be glad to send its studies of present systems and its new plan to anyone who is interested.

## APPENDIX C.

### NOTES ON THE LEGISLATIVE HISTORY OF THE NEW JERSEY 35 YEARS' HALF-PAY PENSION LAW.

By A. W. MILBURY,

*Secretary Board of Trustees, Teachers' Retirement Fund of New Jersey.*

1. Chapter 16, page 33, Laws of 1903, provided for the retirement, on his own application, on half pay, of any teacher who had served for 40 years consecutively in the same district, the pension to be paid by the school district from which the pensioner was retired. The employing board was not given authority to retire a teacher except on his or her application.

2. Chapter 103, page 167, Laws of 1906, provided retirement on half of average annual pay for last five years of service, at expense of the employing or retiring district, of any teacher, principal, or superintendent, on his or her application or by resolution of the employing board, who shall have been employed in New Jersey's public school system not less than 35 years and at least 20 years in the district in which he or she shall be retired. This 1906 act was the first to provide that an employing board might retire a teacher of its own volition, without the application or consent of the teacher. It reduced the entire term of service in New Jersey from 40 to 35 years, made service in the district at least 20, instead of 40 years, and omitted the word "consecutively."

3. Chapter 121, page 286, Laws of 1907, again amended the statute, but only as to the manner in which the district shall provide funds for the payment of the pension.

All the foregoing acts provided that the entire period of service (first 40, then 35 years) shall be in New Jersey.

4. Chapter 276, page 588, Laws of 1911, changed this by providing that the not less than 35 years' public school service shall have been performed "in this State or in any other State," provided, he or she "shall have been employed at least 20 years by the district which retires him or her." Payment was to be by the district. The pension amounted to half the average of the last five years' annual salary. Retirement was on the initiative of the teacher or of the employing board.

5. Chapter 58, page 89, Laws of 1912, provided that "any teacher, principal, or superintendent who shall have been employed in the public school work not less than 35 years," etc., shall be entitled to the half-pay pension. This amendment is obscure. The clause, "the public school work," was construed by some boards of education to mean that the entire 35 years must have been in New Jersey, and by others to mean only the "at least 20 years," in the district from which he or she was retired; that is, that 15 of the 35 years' service might have been outside of New Jersey, provided that "at least" 20 years' service had been in the district from which the party was retired on pension. The amount of pension and manner of payment were not changed.

All the foregoing acts, it will be noted, prescribed that at least 20 of the 35 years' service must be in the district from which the teacher was retired on pension, the district paying the pension. This was unfortunate, because many teachers who had taught 35, 40, 50, or even more years in New Jersey, had never taught 20 years in

one district. The law therefore discriminated against these veterans. The original, 1903, act was 40 years consecutively in the same district.

6. Chapter 268, page 557, Laws of 1914, amended the statute so that "after a total period of not less than 35 years of actual service, every teacher, teacher-clerk, principal, and person employed in any supervisory capacity in or under any system of free public schools in this State or any other State \* \* \* provided that the last 25 years of such actual service shall have been performed in this State," shall on his or her application or by resolution of his or her employing board be retired on half the average salary of the last five years' employment, the pension to be paid by the State (not by the district, as theretofore) and the administration of the act to be vested in the State department of public instruction. The 1914 act created eligibility to pension under several other conditions, but these were intended to cover certain specific cases; they do not affect materially the main proposition, and are specified in the tabulation.

The transference of the "at least" 20 years' experience from a single district to the State at large made the law far more equitable than before, because it protects *all* the veteran teachers of the State, not only those fortunate ones who have been employed "at least 20 years" in the district from which they were retired. Further, by transferring the payment of the pension from the district to the State, the antagonism of small and poor country districts was largely removed, and the tenure of teachers was made more secure, as the temptation of districts to "get rid" of a teacher to avoid paying a pension was removed, at least to a considerable degree.

Experience indicates, however, that the State 35 years' half-pay pension act could have been more effectively safeguarded. Some boards of education are taking advantage of the power granted by the words "or by resolution of the employing board" to retire efficient teachers who have complied with the time-service provision, even though such teachers do not wish to retire and protest against it. It is not necessary to discuss the motives of boards in such cases. Those who are acquainted with school administration and human nature will understand how spite, personal grievance, the fact that a relative or friend wishes the position, etc., may enter in. This not only works injury to the individual, but it works injury to the educational system; it is unjust to the taxpayers who bear the double burden of pension and of salary for the new incumbent, and it is dangerous to the pension plan, because it is likely to create so heavy a pension tax that the system will collapse by its own weight. A disability provision should have been added to the 35 years' clause, and perhaps an age limit without disability.



DEPARTMENT OF THE INTERIOR  
BUREAU OF EDUCATION

BULLETIN, 1916, No. 15

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MONTHLY RECORD  
OF CURRENT EDUCATIONAL  
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INDEX

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# MONTHLY RECORD OF CURRENT EDUCATIONAL PUBLICATIONS: INDEX, FEBRUARY, 1915-JANUARY, 1916.

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# REORGANIZING A COUNTY SYSTEM OF RURAL SCHOOLS

REPORT OF A STUDY OF THE SCHOOLS  
OF SAN MATEO COUNTY, CALIFORNIA

By J. HAROLD WILLIAMS



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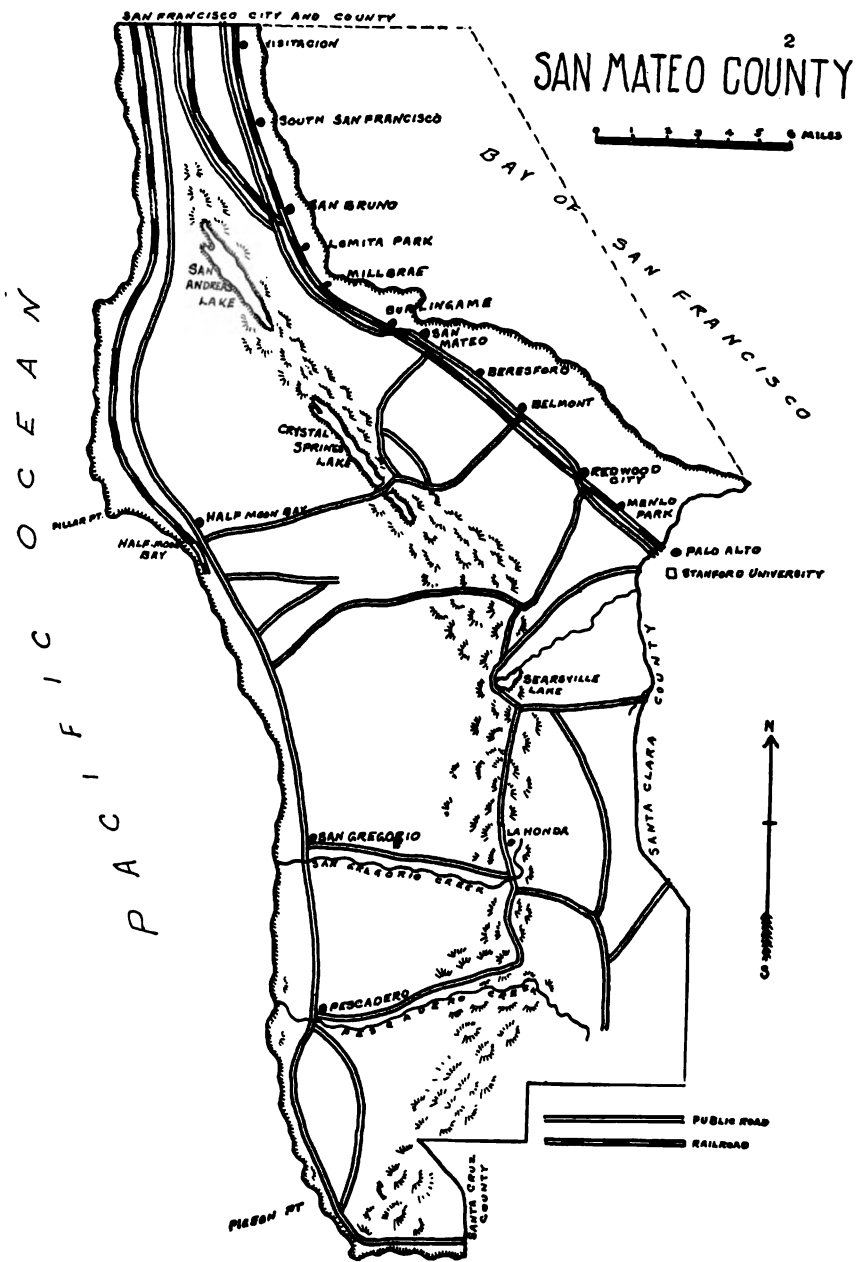
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Map of San Mateo County, Cal.

## INTRODUCTION.

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The purpose of this study has been (1) to make a careful survey of the county, touching upon its geological, geographical, social, and economic features; (2) to survey the system of schools now provided by the many districts in the county; and (3) to propose a system of public schools to meet more adequately the needs of the people of this larger community.

Material has been gathered by a personal visit to every town and nearly every school in the county; by talks with teachers, pupils, parents, business men, and county officials, as well as by written records. Question blanks were presented to each of the rural schools, and were filled out by the pupils in the presence of the investigator. Blanks were also sent to many of the teachers and parents in various districts. Other information was furnished at the county offices, at Redwood City.

Acknowledgments are due Dr. E. P. Cubberley, of the Department of Education, Stanford University, who suggested the survey, and under whose direction it was made; also to Prof. J. B. Sears, for valuable assistance in studying the rural schools.





# REORGANIZING A COUNTY SYSTEM OF RURAL SCHOOLS.

## Chapter I.

### A GENERAL SURVEY OF THE COUNTY.

#### I. GEOGRAPHICAL AND GEOLOGICAL FEATURES.<sup>1</sup>

San Mateo County lies in the west-central portion of California, on the Pacific coast, in that portion of the State known as the San Francisco Peninsula. It has an area of 477 square miles; there are only two smaller counties in the State. It has a length of 39 miles, and varies in width from 5 to 20 miles, averaging about  $12\frac{1}{2}$ . It is bounded on the north by San Francisco City and County, on the east by the Bay of San Francisco and Santa Clara County, on the south by Santa Clara and Santa Cruz Counties, and on the west by the Pacific Ocean. The ocean touches the western side with a shore line of more than 50 miles, and the bay extends along the eastern border for 30 miles.

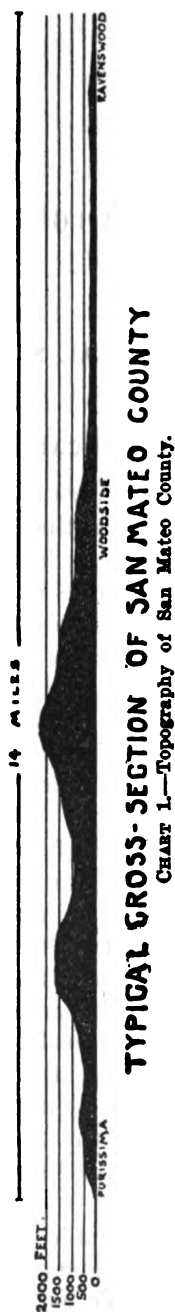
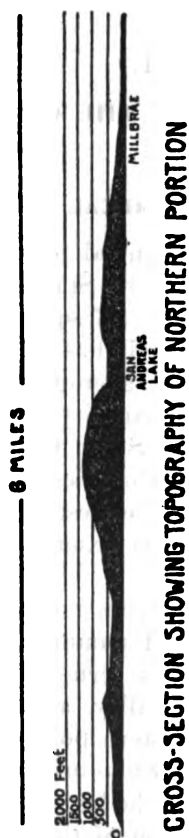
Through the center of the county, from northeast to southwest, runs the Coast Range—a low group of mountains rising from the sea level on either side, reaching, by a series of low foothills, an altitude of 2,500 feet. The Portola Valley, an important farming region, lies east of the ridge. The western portion is rough, and is cut by many deep valleys and gorges, while on the east the foothills gradually drop to the level plain along the bay shore.

It is in this plain, really an extension of the fertile Santa Clara Valley to the south, that the more important towns are located. Through this plain the Southern Pacific Railroad extends south from San Francisco, and a strip of salt marsh separates these towns from the bay.

There are no navigable rivers or large streams. There are seven streams of fair size along the western side, some of which might be utilized for power at some time, although no recent attempts have been made in that direction.

---

<sup>1</sup> This survey was made in 1913-14. Changes have taken place since, but not such as to vitiate the conclusions.



There are four lakes, three of which constitute the Crystal Springs chain, on the high ridge in the central portion of the county to the north, forming part of a series of reservoirs owned by the Spring Valley Water Co., which has been furnishing most of the water supply for the city of San Francisco, as well as for some of the smaller towns along the peninsula. The fourth lake, which is known as the Searsville Lake, furnishes an irrigation supply for the vicinity

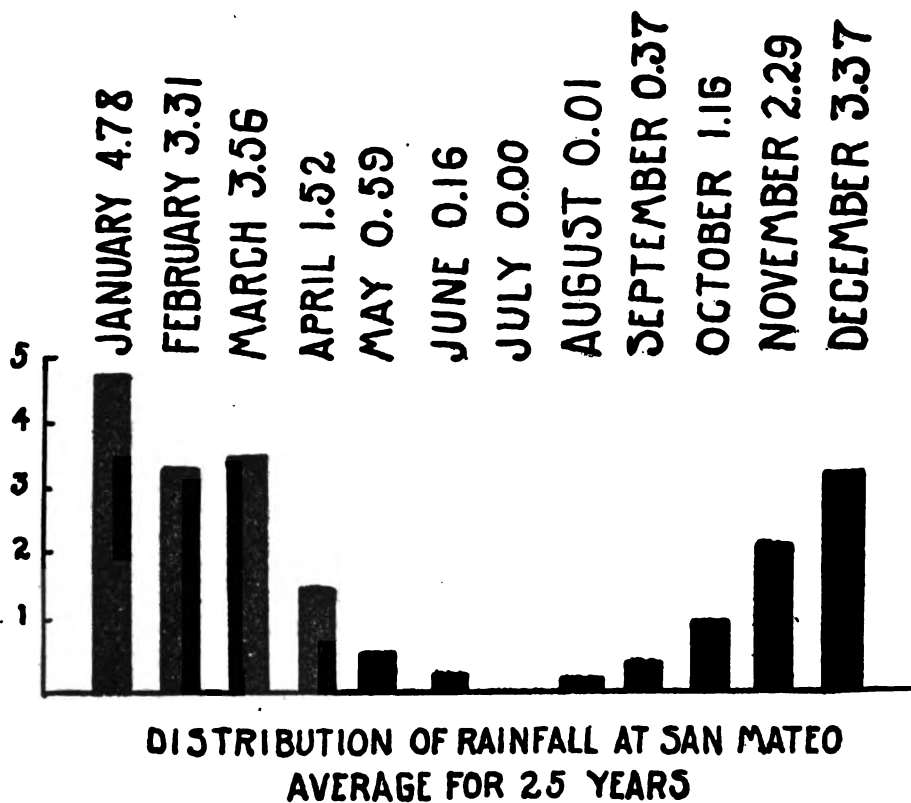


CHART 2.

of Palo Alto and Stanford University, across the line in Santa Clara County.

The rainfall in San Mateo County is usually abundant, averaging for the city of San Mateo 21.12 inches annually. The crops are generally good, with a marked degree of regularity. Of the land in the county, 1.3 per cent is under irrigation.

The county has no mineral resources; although both silver and petroleum have been found, they are of no economic importance.

## II. ECONOMIC AND INDUSTRIAL CONDITIONS.

The principal business of the people of the county is farming. There are 665 farms, varying in size from 1 to 1,000 acres. The following table shows the number of farms of each of the several sizes:

FARMS AND FARM AREA.

	Farms.		Farms.
Under 3 acres.....	46	100 to 174 acres.....	90
3 to 9 acres.....	81	175 to 259 acres.....	52
10 to 19 acres.....	55	260 to 499 acres.....	67
20 to 49 acres.....	112	500 to 999 acres.....	60
50 to 99 acres.....	61	1,000 acres and over.....	41

The average size of farms is 241.6 acres.

The 665 farms of the county total about 160,655 acres. Of this amount, 100,800 acres, or about 62.7 per cent, are improved land. The per cent of the total land area used for farming, and the relative area of farm lands improved are shown in chart 3.

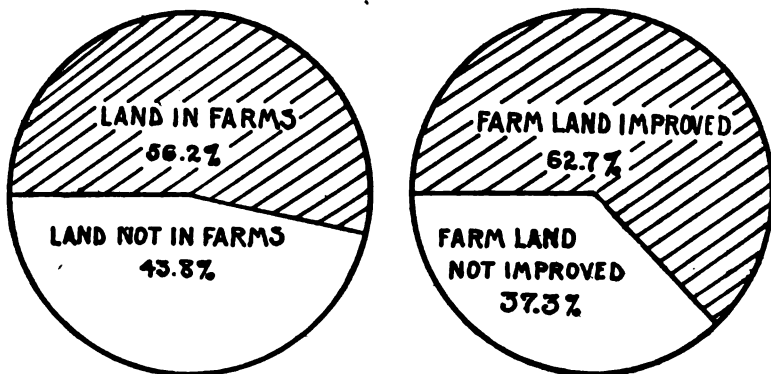


CHART 3.

Although the amount of land devoted to farming has increased but little, the amount of improved land has increased to the extent of 25,400 acres, or about 22 per cent, in the past 10 years. This indicates a steady growth in agricultural activities and promises future development for the county on a firm basis.

The average value of farm land in San Mateo County in 1910 was \$108.61 per acre. This is comparatively high. With the exception of the counties of San Francisco and Los Angeles, there are but 2 of the 58 counties in the State where land values are so high.

The following chart compares San Mateo County in this respect with the State and nine average counties:

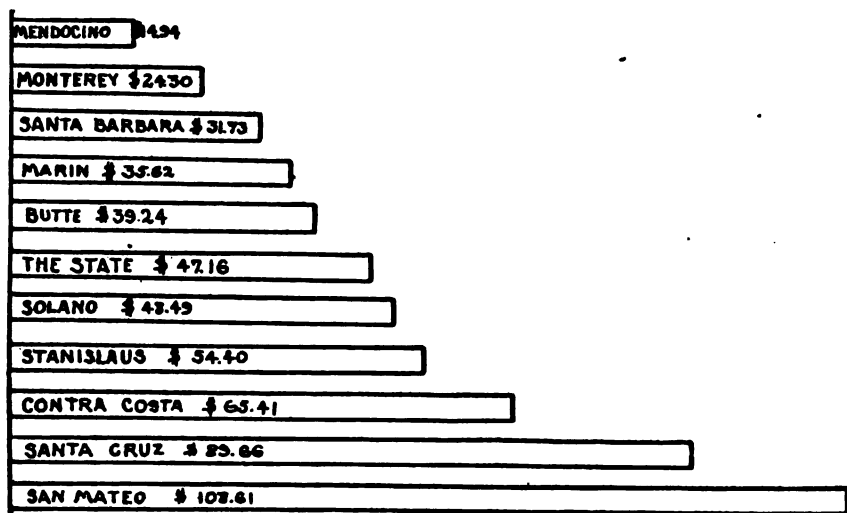


CHART 4.—Average value of farm lands.

The principal crops are hay, grain, potatoes, and garden truck. To the question, What crops do you raise? 10 average farmers, taken at random, replied as follows:

- |   |                                    |
|---|------------------------------------|
| 1. Hay, grain.                            | 6. Grain, garden truck.            |
| 2. Oats, barley, wheat, hay, corn, beans. | 7. Garden truck.                   |
| 3. Hay, potatoes.                         | 8. Oats, hay, potatoes (dairying). |
| 4. Garden truck, berries.                 | 9. Oats, barley, wheat.            |
| 5. Grain, hay.                            | 10. Hay, vegetables.               |

The value of the vegetable crop for the year 1910 was \$1,395,371, being distributed as follows:

Vegetables.....	\$459,470
Hay and forage.....	361,286
Cereals.....	260,218
Other grains and seeds.....	36,742
Fruits and nuts.....	73,272
All others.....	204,403

The county ranks high in the production of its vegetable crop. The 10 counties previously compared show the following values of vegetable crops in 1910:

Contra Costa.....	\$1,125,666
San Mateo.....	459,470
Monterey.....	330,296
Santa Barbara.....	244,205
Stanislaus.....	181,282

Santa Cruz.....	\$164, 518
Mendocino.....	121, 914
Solano.....	84, 337
Butte.....	55, 314
Marin.....	42, 916

The vegetable crop of the county in 1910 was one twenty-seventh, or nearly 4 per cent, of the vegetable crop of the entire State.

The animal products are slightly less in value. The census report for 1910 gave the following:

Cattle.....	\$463, 646
Horses.....	425, 978
Hogs.....	93, 912
Poultry.....	26, 112
Sheep.....	5, 140
Bees.....	958

The value of the cattle crop for the year 1910, as compared with other counties, was as follows:

Santa Barbara.....	\$35, 813
San Mateo.....	30, 380
Stanislaus.....	28, 323
Butte.....	24, 553
Mendocino.....	22, 275
Contra Costa.....	21, 899
Solano.....	21, 886
Santa Cruz.....	19, 149
Monterey.....	13, 975
Marin.....	12, 569

The total value of one average year's crops in San Mateo County is approximately \$2,000,000. Compared with the total land value, this is an indication of good investment.

There are two industrial plants of much importance to the county. At San Mateo are the Salt Refining Works, which evaporate the water of the bay and by a special process refine the product into a high-grade table salt, with the coarser grades of salt as by-products. This is a large and growing industry, with an unlimited supply of material. The process of evaporation, as carried on at this plant, is made possible along the shores of San Francisco Bay by the fact that here the evaporation exceeds the precipitation by 25 vertical inches annually. Since there are few places in the United States where a similar situation exists, San Mateo County is assured of a large and growing industry of no little national importance. The output of refined salt is 40,000,000 pounds per year.

The tanning factory, at Redwood City, is another large industry of importance to the county. This plant employs 125 men, runs to

its full capacity every working day in the year, and produces leather to the value of over \$500,000 per year.

The facilities for transportation and communication in the county are good. Two main telegraph lines enter the county, and telephone lines cross in all directions.

The wagon roads are in fairly good condition. At a recent election, bonds to the extent of \$1,250,000 were voted for new and improved roads. The roads in need of the most improvement, perhaps, are those leading over the mountains, east and west, across the county.

The new \$18,000,000 State automobile highway extends the entire length of the county, along the line of the Southern Pacific Railroad, and this splendid paved road, furnished by the State, is available

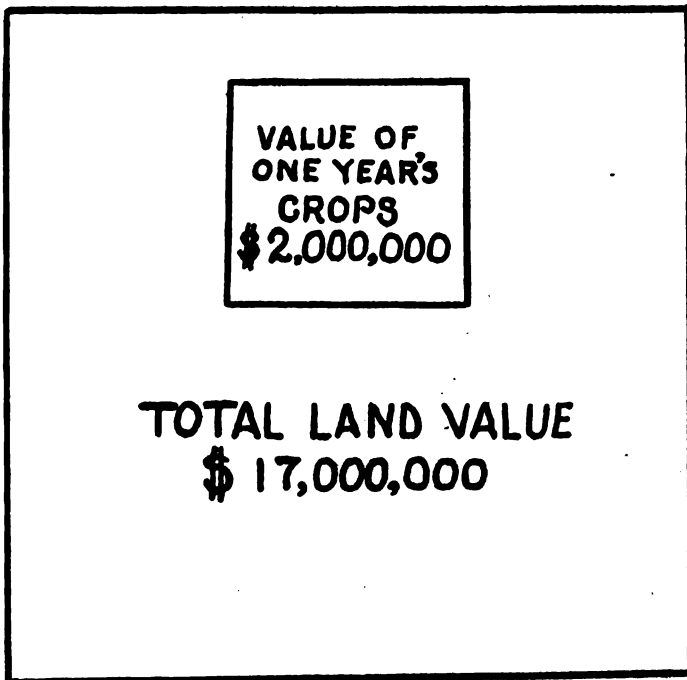


CHART 5.

for the use of the people of San Mateo County for a distance of 30 miles.

### III. THE PEOPLE OF THE COUNTY.

The population of the county in 1910 was 26,585, an increase of 119.8 per cent in 10 years. This is an exceptionally large increase, compared with the entire State and with other counties. The increase



in population in 10 counties during the period 1900 to 1910 was as follows:

	Per cent.
Stanislaus .....	135.8
<i>San Mateo</i> .....	119.8
Contra Costa .....	75.5
Marin .....	59.8
Butte .....	50.5
Santa Barbara .....	46.5
Monterey .....	24.0
Santa Cruz .....	21.5
Mendocino .....	16.9
Solano .....	14.1
The State .....	60.1

While the county has always enjoyed a steady growth in population, the amount of increase during the past decade is an item of great importance in considering the reorganization of its school system. The following chart shows the increase, by decades, since 1870:

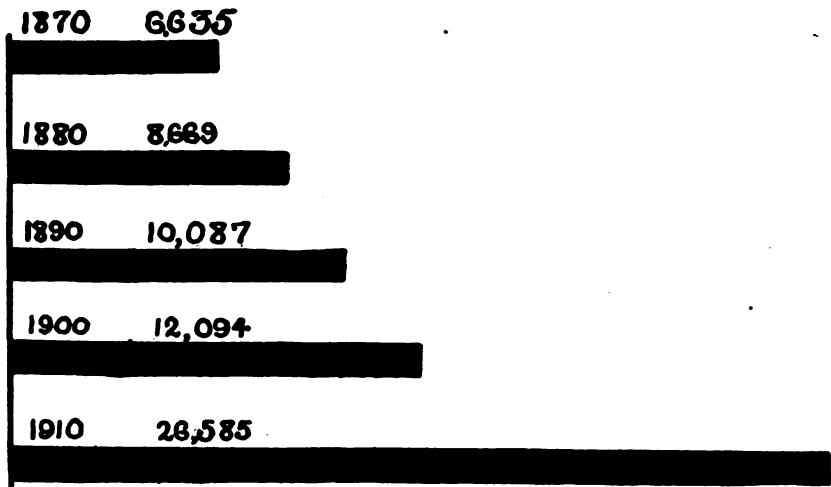


CHART 6.—Increase in population of San Mateo County, by decades.

The greater portion of the people of the county are native-born, although in parentage many different nationalities are represented. The colored population is negligible, there being but 67 Negroes in the county. The cosmopolitan nature of the population is shown in the following chart. A striking feature of the diagram is the nearly equal distribution of the three general parentage classes.

Most of the foreign population are engaged in farming and hence form an important part of nearly all the rural school districts, for the most part of an industrious type and make very desirable and profitable citizens.

As previously noted, nearly all the towns of the county are located along the eastern side on the bay shore. The largest of these towns is San Mateo, with a population of 4,384. The next in size is Redwood City, the county seat, with a population of 2,442. Both are growing rapidly, the former having increased 75 per cent and the latter 50 per cent in the past 10 years, with modern improvements accordingly.

The most interesting fact found in a study of the population is that this county is distinctively a rural one. There are but two towns having a population of 2,000 or more, and the remaining towns

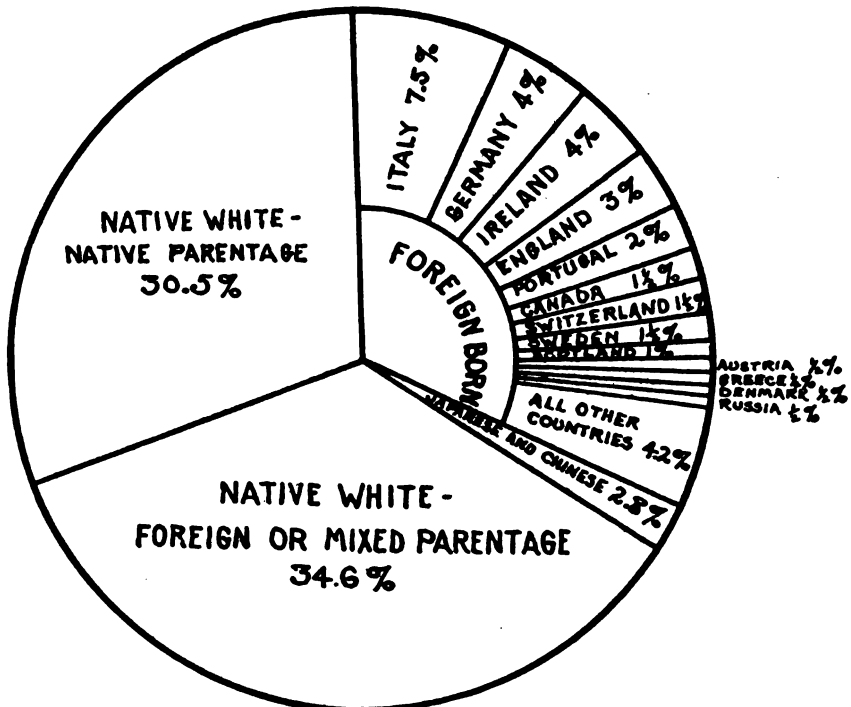
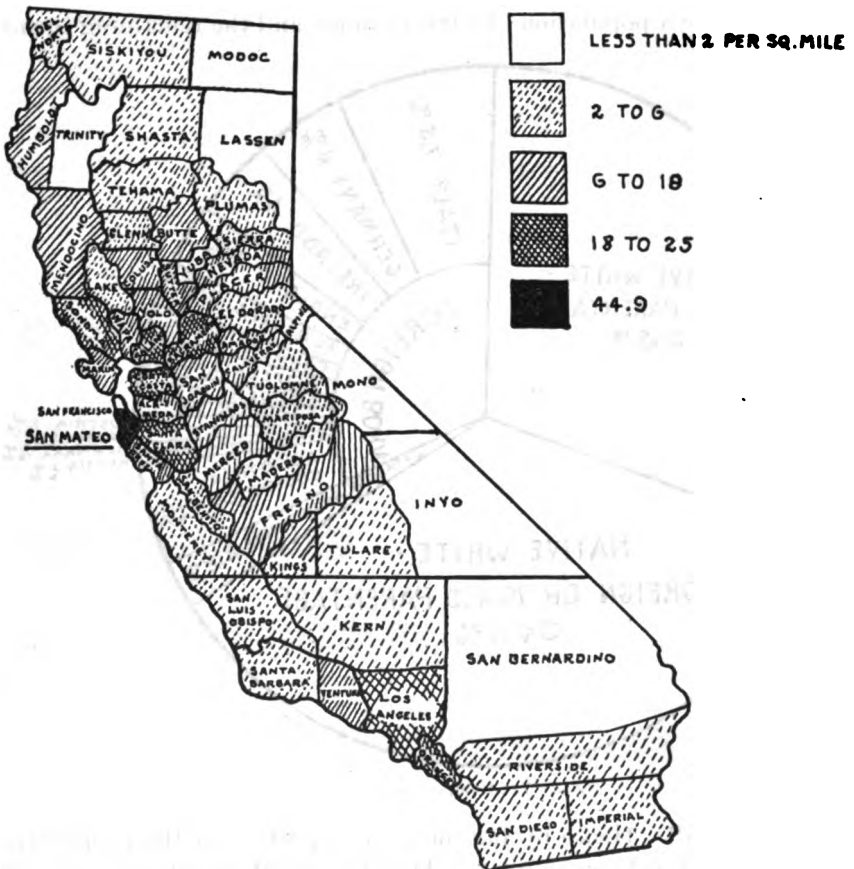


CHART 7.—Composition of population.

are very small. Hence by far the greater portion of the people live in the small rural communities. This, to a great extent, accounts for the large number of small rural school districts, where but one teacher is employed for children of all sizes and ages.

The rural population of San Mateo county is nearly 50 persons (49.9) per square mile, which is a much larger proportion than in any other county in California. The map of the State on the following page shows how the county leads all others in this respect. The figures are taken from the census reports for 1910. This map indicates one of the most significant facts to be considered in the

survey. In the towns along the Southern Pacific are the homes of many business men of San Francisco. A large number of these are handsome residences, and in most cases the property is extensive and very valuable. The town of Burlingame, just 16 miles south of San Francisco, is a community composed of these people, and is a fashionable residence center. Connections are made with the metropolis by means of steam trains, electric cars, and the new automobile boulevard.



**CHART 8.—Rural population of California, by counties.**

The amount of illiteracy in the county is high, compared with most California counties. The census of 1910 found 1,684 persons in the county above 10 years of age who could not read and write. This is 7.8 per cent of all the people in the county of that age or over and is a high figure for a California community. There are but 10 counties in the State having so high a percentage of illiteracy, and the average for the State is but 3.7 per cent. The following

table compares San Mateo County in this respect with its four neighboring counties:

	Per cent of illiteracy.
San Mateo.....	7.8
Santa Cruz.....	4.6
Santa Clara.....	4.4
Alameda.....	3.6
San Francisco.....	2.1

The percentage of male persons in the county of voting age who can not read and write is 10.9. Of the 10,153 male voters, 1,106 are illiterate. This number has decreased in the past decade, however, from 11.7 per cent in 1900 to 10.9 per cent in 1910—an improvement of 1.8 per cent.

#### IV. GOVERNMENT OF THE COUNTY.

For legal purposes the county is divided into five *townships*, each electing one *supervisor* for a term of four years. These five men constitute the *board of supervisors*, in whose hands all matters per-

**Public Buildings \$8,331**

**Protection of Life, Health, Property \$13,877**

**Judicial \$21,042**

**Charities and Corrections \$28,515**

**Highways and Bridges \$139,084**

**Education \$230,701**

**Salaries and County offices \$608,807**

CHART 9.—Relative expenditures in San Mateo County.

taining to the county are left, except those delegated to the board of education. The board of supervisors levy the county and district school taxes, appoint the members of the board of education, and fill vacancies in the county offices. Their chief function, however, is to provide and maintain roads and public highways; although any proposition involving the entire county is, indirectly, at least, under their supervision.

There are 20 county officers, 8 of whom are appointed by the board of supervisors. These include health, probation, and traffic officers.

The remaining officials, including the superintendent of schools, are elected for four-year terms by the people of the county. Most of the affairs of the county are well centralized, and matters involving roads, regulations, etc., are decided upon by the county officials with no smaller units of jurisdiction. The civil affairs of the county are well managed.

The following table shows the county appropriations during the past year <sup>1</sup> for salaries and maintenance of the more important offices. The expenditure for the office of superintendent of schools, it will be noted, is among the lowest.

*Expenditures for county offices.*

Offices.	Salary.	Total allowance for office.
Recorder.....	\$3,500	\$11,131.65
Board of supervisors (5).....	6,000	10,100.15
Clerk.....	3,000	8,568.82
Surveyor.....	1,600	7,320.05
Sheriff.....	4,500	6,631.55
Tax collector.....	3,500	6,126.60
District attorney.....	2,400	4,733.74
Auditor.....	1,800	3,505.55
Superintendent of schools.....	2,100	2,638.99
Coroner.....	Fees.	2,368.55
Treasurer.....	1,800	1,861.00

<sup>1</sup> 1913.

## Chapter II.

### A SURVEY OF THE PRESENT SCHOOL SYSTEM.

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#### I. ORGANIZATION AND ADMINISTRATION.

There is provided, by State law,<sup>1</sup> a county *board of education*, "which shall consist of the county superintendent of schools and four other members, appointed by the board of supervisors of the county." These members, or at least a majority of them, must be "experienced teachers, holding not less than a grammar school certificate in full force and effect." The superintendent of schools acts as secretary of the board *ex officio*.

The board is required to meet semiannually, and at such other times as the superintendent of schools shall deem it necessary to call them together. Each member receives a compensation of \$5 per day for his services, and is allowed 25 cents per mile from his home to the county offices, for each meeting.

The following are the powers and duties of the county board of education, as provided by law:

1. To examine applicants for teacher's certificates.
2. To grant certificates to qualified persons.
3. To revoke certificates.
4. To adopt books and apparatus purchased by the schools of the county.
5. To issue diplomas for graduation from elementary schools.

California is a district-system State, and everywhere the districts, rather than the counties, control the educational affairs. San Mateo County is divided into 36 school districts, 23 of which have rural one-teacher schools. Each district, by law, has a board of trustees consisting of three members elected by the people of the district. Each member of the board is elected for a term of three years.

Each of the 36 boards of trustees is given almost absolute control over the schools of the districts, employing teachers and janitors, determining salaries, erecting buildings, making repairs, buying

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<sup>1</sup> School Laws of California, 1913, p. 167.

land, or carrying out any schemes they may see fit, so long as they are not forbidden by law. and provided that they remain within the

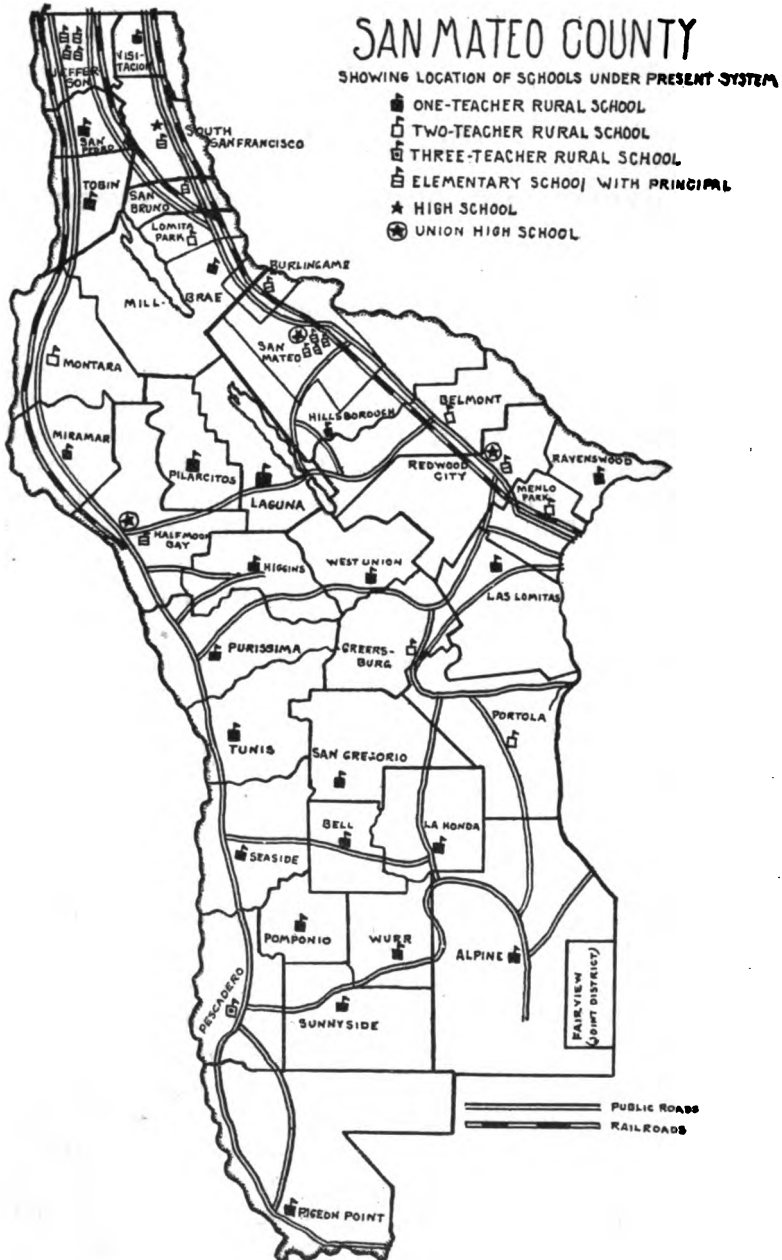


CHART 10.

limits of the funds of the district. For any excess of these funds expended they are personally liable.

There are also three high-school districts, each made by the union of several neighboring districts and each having an additional board of five members vested with powers and duties similar to those of city boards of education, and authorized to act independently of the boards of trustees of the districts of which the union district is made.

The map of the county on page 20 shows the location and size of the schools as they now exist, and also the 36 small districts into which the county is divided:

The county superintendent of schools is elected by popular vote for a term of four years. He receives a salary of \$2,100 per year, but with no allowance for clerical assistance of any kind. He is by law given the following duties:

1. To superintend the schools of the county.
2. To apportion State and county money to each school district.
3. To visit the schools.
4. To preside over the county teachers' institute.
5. To issue temporary teachers' certificates.
6. To distribute laws, blanks, etc.
7. To make and keep records.
8. To approve plans for school buildings, submitted by the district boards of trustees.
9. To act as secretary to the board of education.
10. To appoint trustees to fill vacancies to hold office until the next district election.

These duties, it will be seen, are, with the exception of No. 1, largely clerical in nature and could be equally well performed by an office clerk of reasonable intelligence. No unusual amount of training or preparation is required.

In duty No. 1, although authorized to "superintend the schools of the county," there are absolutely no powers granted him consistent with the carrying out of that duty. The county superintendent, under the present system, can not determine the site or location of a school building or rearrange desks or seats in any building on account of the inadequacy of the heating or lighting; he can not require more ventilation or condemn any building if these things are not properly provided. He can not select teachers, specify their salaries, direct their method of teaching, or dismiss a teacher for incompetency. He can not require janitor work to be more efficiently carried on, employ additional janitors, or require any school building to be cleaned.

"Supervision" of the schools usually consists in visiting each school in the county once during the school year, as required by law, for a period of from 15 minutes to 1 hour; in asking a few questions of the pupils, generally in the form of an examination in reading, etc., for the purpose of determining whether or not the



pupil shall receive the county diploma for graduation; and in meeting the entire teaching body at the yearly teachers' institute. Rarely does the superintendent see or talk with his teachers except on these two annual occasions.

## II. A SURVEY OF THE SCHOOLS.

The schools, for convenience in this survey, will be divided into three groups: (a) Elementary schools with supervising principals; (b) high schools; (c) rural schools.

### SUPERVISED ELEMENTARY SCHOOLS.

In the towns of South San Francisco, Burlingame, San Mateo, Redwood City, and Half Moon Bay the boards of trustees have employed supervising principals. This is also true of Jefferson district, in the northwest part of the county, where the residence section of San Francisco has extended over the county line. In these districts individual school systems have been worked out and are very efficiently conducted. The following table summarizes the main features to be considered in this report:

*School statistics of certain districts.*

Names of districts.	Schools.	Enrollment.	Teachers.	Salary of principal
San Mateo.....	4	985	24	\$2,400
Burlingame.....	1	345	8	1,800
Redwood City.....	1	467	16	1,800
Half Moon Bay.....	1	167	5	1,500
South San Francisco.....	1	455	12	1,800
Jefferson.....	4	907	24	1,800

All of these school systems, located in districts where land values are high and where increased taxes are permissible, may be classified as good. The buildings, in all cases, are large and substantial, and although somewhat crowded, are merely confronted with the ordinary problems of growing towns and young cities. The teachers, in general, are well selected and well paid, and the equipment is complete and modern. The principals are mature school men, and their presence at the county institutes is very beneficial to the rural teachers.

The control of these systems, however, by the local board of trustees, the drawing of definite district lines, and the lack of transportation facilities, make the efficiency of these schools much below the point which could be reached if they were placed under the jurisdiction of the county as a single unit.

## THE HIGH SCHOOLS.

There are four high schools in the county, located, respectively, at San Mateo, Redwood City, Half Moon Bay, and South San Francisco. The first three named are "union" high schools and are

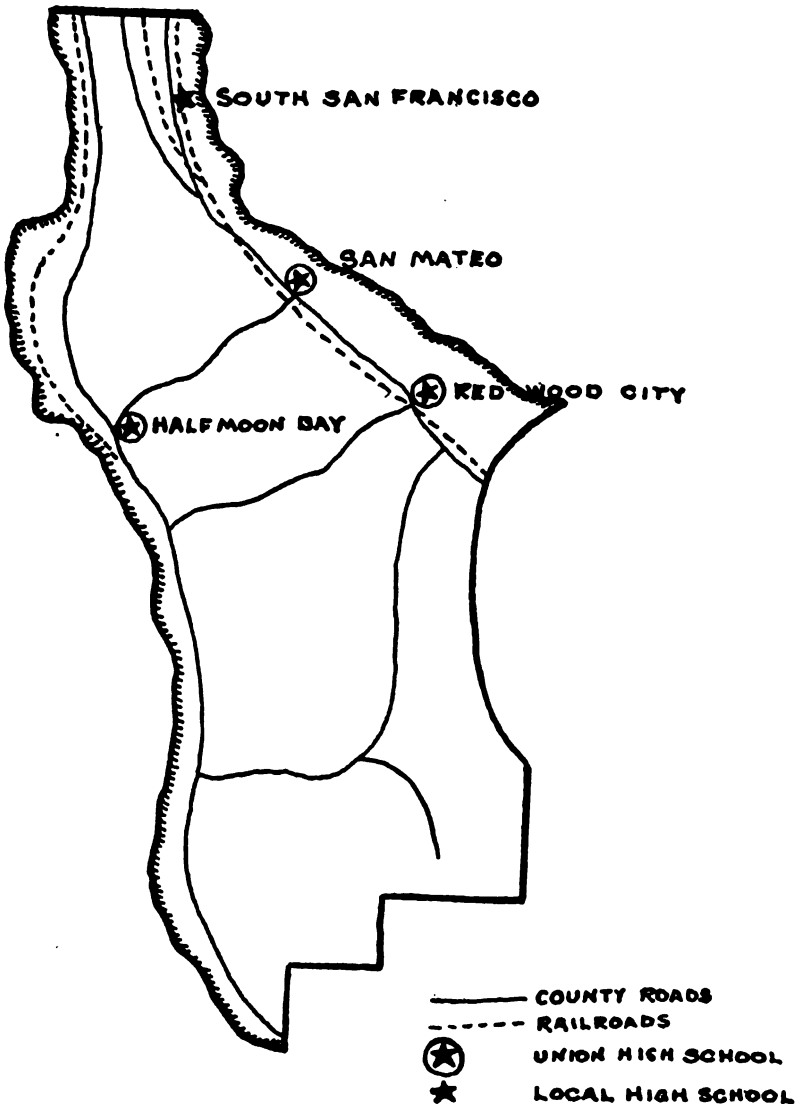


CHART 11.—Present location of high schools.

maintained by the consolidation of several districts for that purpose only. The high school at South San Francisco is small and is not a "union" school, but is maintained by the one district.

The union high schools are doing very effective work and constitute a commendable part of the school system of the county. They are all well supervised and employ excellent teachers. The San Mateo Union High School, the largest in the county, ranks among the best in the State.

The following table summarizes the general information to be considered in surveying the high-school possibilities of the county:

*Statistics of union high schools.*

Schools.	Value of building.	Teachers.	Pupils.	Salary of principal.
San Mateo Union High School.....	\$290,000	13	222	\$2,500
Sequoia Union High School.....	59,540	8	93	2,200
Half Moon Bay Union High School.....	30,000	5	32	1,500

The opportunities for high-school attendance, however, are inadequate. No means of transportation has yet been offered by any of the schools, or by the county, and the enrollment is made up largely of pupils living in the town in which the school is located, or from near-by towns where railroad facilities exist. Only a small per cent of the children from the rural districts reach the high school, and then only when it is within walking distance or there is a family conveyance. At Half Moon Bay the board of trustees has attempted to meet this problem part way, by providing feed and shelter for horses which are used by the children for bringing them to the school. The trustees here see that the horses are well cared for, kept shod, etc. This effort on the part of the officials of the school to encourage the attendance of the pupils of the rural districts is to be commended, and is but suggesting the larger work that the county should be doing to provide for the rural children.

The county should provide suitable means of free transportation for all pupils in the rural districts who can attend high school. There should also be at least one complete four-year high school and an intermediate, or two-year, high school in the central portion of the county. Suggestions and proposals concerning these will be made later in this study.

#### THE RURAL SCHOOLS.

There are in the county 31 schools, in as many school districts, where no supervising principal is employed. These 31 schools are in the hands of 43 teachers, among whom is one man.

The remaining 30 schools are taught by 42 women teachers, wholly without supervision, except such as the county superintendent can

give in his yearly visit. The following table shows the number of teachers in these schools:

1 school employs	6 teachers,
1 school employs	3 teachers,
6 schools employ	2 teachers,
23 schools employ	1 teacher,
<hr/>	
31 schools employ	43 teachers.

It is in these 31 unsupervised schools that the urgent need of county reorganization is seen. Each school is a unit in itself, under the present system. Each must adopt, as best can be done, the county course of study; but local conditions, and the common necessity of one teacher having a whole school of eight grades under her care, cause wide variation in the use of even this very important part of the system.

It must be stated, in all fairness, that the rural one-teacher schools in San Mateo County are not below the average schools of the same kind in other counties; on the contrary, there are many commendable features in this county which are not found elsewhere. The chief fault lies not with the present schools and their teachers, but with an inherited and outworn system which permits of such unequal educational advantages as does the district system.

It is inconceivable that in any American city there should exist 31 schools, 23 of which were supplied with but one teacher each, without supervision other than an occasional visit of a school official.

Many of the buildings in use by the one-teacher schools are in bad condition and should be condemned. Four of these buildings were erected in 1870, and seven are more than 30 years old. Being of the old type, they are poorly constructed. Several of them are old dwellings which were purchased by the district trustees for school purposes. Needless to say, they are insanitary, poorly lighted and ventilated, and difficult to keep at the right temperature.

Better buildings, of course, are found in districts where more money can be secured and where two or three teachers are employed. The new building at Menlo Park, for example, is quite modern and up to date, considering that but two teachers are as yet provided for; while the Ravenswood school, in another district and at a distance of less than  $1\frac{1}{2}$  miles, is unable to provide a janitor. By consolidation all the children of both of these districts could be cared for at even less expense than both districts are under.

Three of the rural districts, after repeated efforts, have been unable to vote bonds for the erection of school buildings and consequently have none. At Hillsborough, school is kept in a room in the "city hall," and the Tobin and the Laguna schools are maintained in old houses rented for that purpose by the trustees.

In the Alpine, West Union, and Visitacion school districts the buildings are unfit for school purposes and should be abandoned at once. This is also true in the La Honda district. In all four cases efforts to vote bonds have failed.

There are several examples of modern buildings, however, and the people of these districts should be commended upon having secured them. The Las Lomitas school is an exceptionally well-constructed building for a rural district. The school at Lomita Park is another in this class. In these cases the accomplishments have been made either through the unusual pressure brought about by public-spirited citizens or because the community was able to tax itself to the extent necessary. But their poorer neighbors in the hills in smaller communities are forced to continue as best they can, using in some cases a building for school purposes in which they themselves would not care to live.

It is for these children, who lack many other advantages as well, that the appeal is made for the equalization of the burden, not to rob any community of its opportunities, but to put the same opportunities within the reach of all the children in the county.

Janitor work is provided for by some districts by expenditures amounting to \$5 to \$10 per month. Usually this is undertaken by one of the older pupils of the school, and it is doubtful, often, if the results justify the expenditure. In some cases the teacher is required to do this work, and it is often neglected.

The economy idea in modern sanitation has not as yet found its way into many schools. Feather dusters, straw brooms, and tin water buckets abound in the smaller schools, and in one case, individual drinking cups, of all sorts and shapes, provided by the pupils, were kept on a shelf where the circular imprint of each was left in the coating of dust. This same school was found to have huge cracks and openings in the walls and ceilings, from which pieces of plaster fall from time to time. The stairway and upper rooms of this building, not being used at present, are littered with dirt, trash, and plaster; and upon entering the building one recognizes the familiar odor of an old house which has been vacated and neglected for years.

These conditions, and others which might be described, have arisen wholly on account of the lack of supervision. They are a result of the district system. That boards of rural school trustees, with the right to complete independence, should sometimes fail, either through carelessness or ignorance, to provide a comfortable and healthful school for the children of the community is only natural and to be expected under this form of school organization and management.

At nearly all of the rural schools questionnaires have been presented to the pupils, and a great deal of information secured concerning their home, school, and community life. Space will not permit of the details of this portion of the survey, or of all the conclusions to be drawn from the facts disclosed. Some features will, however, be summarized.

The questionnaire was divided into three parts; one was sent to the teacher, one to the parents, and one was filled by the children of each of the schools.

The blank filled by the teacher gave information concerning the mechanism of the school, the application of the course of study, etc. The blank returned by the parents—several in each district—brought information concerning the size and location of farms, the kinds of crops, the condition of the roads, the newspapers and magazines read, and the opinion of the patrons regarding the work of the school.

The questions answered by the children (in nearly every case under the personal supervision of the investigator) brought interesting facts concerning the economic and social advantages, as the children saw them, of their school and community; their home life, their likes and dislikes of country life, part of their store of information acquired through observation and home instruction, their favorite games, pets, etc., and their plans for the future.

Any one of the 30 or 40 questions asked would make a story in itself, and would be a decided contribution to the work of those who were trying to make the school count for the greatest degree of efficiency. The following data, including the answers to but a few of the questions and covering but half the older children of a single district, indicate in a small way the nature of the survey and its value when tabulated:

*Children's answers to questionnaire.*

No.	Age.	What work do you do at home?	What do you buy with your money?	Do you put money in a toy bank?	In the real bank?	What books do you like best?	What are you going to be when grown?
1.....	11			Yes...	No...	Story...	
2 <sup>1</sup> .....	12	Milking.....	Candy...	No...	Yes...	Henty...	Engineer.
3.....	13	Cooking.....	do.....	Yes...	No...	Story...	Milliner.
4 <sup>1</sup> .....	14	Plowing.....	Clothes...	No...	Yes...	Alger....	Workman.
5.....	16	Housework...	do.....	No...	No...	Atlas....	Nurse.
6 <sup>1</sup> .....	14	Milking.....	Candy...	Yes...	No...		Cowboy.
7.....	15	Housework...	Clothes...	Yes...	No...	Alcott...	Teacher.

<sup>1</sup> Boy.

In this school it was found that the children were familiar with nearly all the trees, wild birds, and wild flowers in the community;

that but four of the children had neighbors near enough to play with; that they all liked to live in the country; and that in the school there were children who could play the piano, organ, guitar, banjo, harmonica, violin, and cornet.

In reply to the question, What do you expect to be when you are grown? it was found that every one of the older pupils had something definite in view. It further developed that 9 of the 12 older pupils expected to go to high school and to college if it were possible to do so.

### III. THE COURSE OF STUDY.

The present course of study for the elementary schools of the county is prescribed by the county board of education. In preparing a program the board is necessarily limited to one that will prepare for high-school subjects, one that can be used in all schools and yet be carried out by a teacher having eight grades in one room.

All schools in the county, whether having 1, 2, 6, or 20 teachers, are required to use the "uniform" course, which is printed and distributed by the county superintendent.

#### *Course for the current year by subjects and grades.*

Number work.....	All grades.
Mental arithmetic.....	Grades 7, 8.
Geography.....	Grades 3, 4, 5, 6, 7, 8.
Physiology.....	Grades 4, 5, 6, 7, 8.
Spelling.....	All grades.
Word analysis.....	Grades 7, 8.
Reading.....	Grades 1, 2, 3, 4, 5, 6.
Literature.....	Grades 7, 8.
History.....	Grades 4, 5, 6, 7, 8.
Language.....	All grades.
Civics.....	Grades 7, 8.
Morals and manners.....	All grades.

The course also provides that the following subjects be given by schools where the work can be extended into the ninth grade: English, ancient history, algebra, bookkeeping or Latin, spelling, writing.

This course of study represents a serious attempt to meet the essential branches with the equipment at hand. Although it is lacking in science, agriculture, and domestic arts, it is a full program for any one teacher or for any two teachers having a complete school of eight grades. It is about all that can be managed under present conditions. With a consolidated system, these conditions will automatically cease, and a more modern course of study will be easily possible.

It would seem, however, even under the existing difficulties, that the county should recognize the need of agriculture as a part of the

regular school work, even to the exclusion of some other subjects. Some of the more wide-awake teachers are now conducting school gardens, but for the most part the industrial and home subjects have been disregarded.

An interesting fact in connection with the course of study is that the assembled teachers of the county, at the yearly institute, are invited by the board of education to adopt, by two-thirds vote, any change they may desire. At one meeting of this nature the teachers voted to eliminate cube and square root from the prescribed course in arithmetic.

Progressive measures, however, which must wait for adoption in this way, are likely to be delayed for long periods of time. Sufficient authority should be vested in the superintendent of schools, as a modern educational expert, to make needed changes in any part of the course of study whenever he sees fit. The superintendent, with this authority given him, and with the support and cooperation of the teachers and the people of the county, could act in the same capacity as superintendents of city school systems, from whom most of the progress in curriculum making has come in the past 20 years.

#### IV. THE TEACHERS.

The teaching body in San Mateo County constitutes the most commendable part of the school system. With the few exceptions usually found in any city or county, the teachers are of a high order. The exceptions, furthermore, occur generally among those who have not had special training, but who have held positions either on old certificates or have secured certificates by virtue of having passed the county examinations.

Of the 130 teachers in the elementary schools, 81 are normal school graduates, 15 are university graduates, and 34 hold county certificates by examination. Chart 12 indicates the relative number in each group, expressed in per cents.

The county is to be commended upon the fact that nearly three-fourths of the teachers are graduates from professional schools, and especially that university graduates are secured by several schools. The number of professionally trained teachers is constantly increasing, and the examination requirements are made more rigid each year. This insures a continuance of the high standards of qualification for teaching positions.

In general great care has been taken in the selection and recommendation of teachers. An honest effort on the part of the people to secure efficient, well-trained teachers for their schools is an indication of a high degree of interest in the welfare of their children. This is to be recognized as an important factor in laying plans for better things in their school system.



The lowest salary paid to any regular teacher in San Mateo County is \$700 per year. In the rural schools teachers receive from \$750 to \$900 per year. In the one-teacher schools the yearly salaries range as follows:

*Salaries in one-teacher schools in San Mateo County.*

1 teacher receives.....	\$700	1 teacher receives.....	\$850
10 teachers receive.....	750	2 teachers receive.....	900
4 teachers receive.....	800	1 teacher receives.....	930
2 teachers receive.....	840	2 teachers receive.....	960

The average salary of teachers in one-teacher schools is \$879. This is higher than the average for all the elementary teachers in the county, including towns.

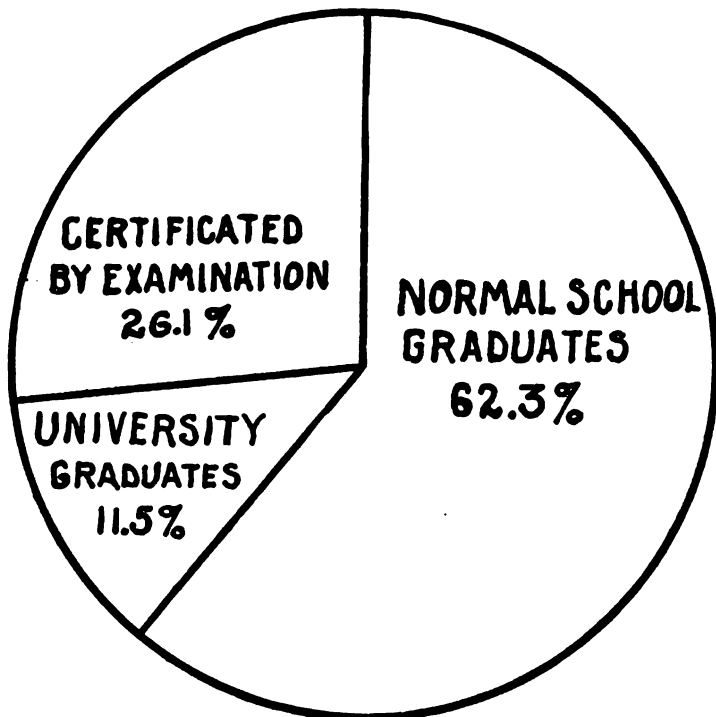


CHART 12.—Qualifications of teachers.

The teachers, on the whole, are found to manifest much interest in their work. It is a truly capable woman who can successfully manipulate a school of seven or eight full grades by herself. There is no other alternative, however, for many teachers than to face this problem, and in most cases the cause of failure to do this does not rest with her efforts.

A strenuous attempt is being made on the part of some of the teachers, even under the existing conditions, to make the school work count for something vital in the lives of the children. All over the county energetic teachers are using every means at hand

to give something of a modern air to the school. In one school a group of the older pupils were studying the universities and colleges within a day's journey from their homes, and had collected pennants from several of these institutions to display on the walls of their schoolroom. The boys in this school were determined that they should go to college, and were glad to talk to their visitors from the university. One rural school was found to have a phonograph with records of the very best type. In another school the teacher, who is a university graduate, is developing a high degree of artistic ability in her school, using the latest models and methods. The apparatus for this, however, she provided at her own expense. This same teacher has also conducted open-air classes in the school yard.

A few teachers have induced their trustees to supply the school with sanitary drinking fountains and paper towels—things never before heard of in the district.

One teacher reported that she took a daily paper, two weekly papers, and seven monthly magazines, four of which were professional education journals. This teacher was keeping school in an old, worn-out building, which was kept, nevertheless, clean and neat, and in a district which furnished but 10 pupils—4 of them her own children. Another energetic teacher was giving extra time in teaching algebra and bookkeeping to boys who were anxious to remain in school near their homes. Such examples as this, and many others which could be cited, indicate favorable conditions for progress. Needless to say, these teachers were only too glad to have the survey made, and willingly gave all the information they could.

In another school the investigators found an old, dilapidated building, poorly kept and untidy, where the teacher eyed the inquiry blanks with suspicion and asked if it were compulsory to answer the questions, as she did not like to do things which were unnecessary. One teacher was conducting a reading class, with the children enthusiastic and quick to respond, while her neighbor in the adjoining district was found dragging over the same lessons, which were a burden to the pupils and herself and a waste of time to the school.

The great need among the teachers of the rural schools is the better type of supervision that consolidation will bring. This is evidenced by the fact that many of the better teachers have expressed this view themselves. To be crowded into a small, isolated district, where new buildings and better equipment is almost an impossibility, is to cheat an energetic and live teacher of her rights as a public official.

Better things can never be expected to any marked degree of efficiency under the district system. When the district lines are removed, the small one-teacher schools abolished, and the entire county

operates as a single unit for equal educational advantages, the people of the country will not have to look to the towns for good schools; there will be in the mountains, as well as along the level shore line, substantial, healthful, well-supervised schools; and competition with the urban schools will be only a matter of individual differences among the pupils themselves.

#### V. SUMMARY OF THE INVESTIGATION.

1. San Mateo County is well located for future development of economic importance.

2. This development will be largely in the lines of agriculture and manufacturing.

3. Future agricultural development is assured by recent progress and by the amount of improvement of lands not now in farms.

4. The population is rapidly increasing, with indication of much further increase.

5. The population is of a cosmopolitan nature; there are 15 nations represented to an appreciable extent.

6. In the amount of illiteracy the county ranks among the lower grade of counties in the State; 1,684 persons, or 7.8 per cent of the population above 10 years of age, can not read and write.

7. The county is strictly a rural community, leading all other counties in the State in rural population per square mile.

8. The "district system" of public education has worked here, as in most places, to the detriment of educational progress.

9. Many districts have been able, under local conditions, to maintain good schools, and their work is to be commended.

10. Other districts have been forced to yield to financial difficulties, and the schools have suffered for lack of much-needed attention.

11. The present course of study has been carefully prepared, and much effort has been made to carry it into effect; but it is not in accord with the needs of a rural county.

12. There are in the county three excellent consolidated high schools, whose work compares favorably with others of equal size in the State.

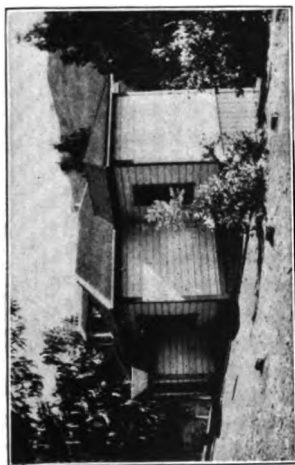
13. The teachers are well selected and well paid; on the whole, they are rendering quite efficient service.

14. The county is a unit for all purposes except for education, and much good has resulted in these other lines by the use of the larger unit.

15. A unified system of public schools, with equal opportunities to all the children of the county and the proper management of educational affairs, can be secured only by abolishing the districts and establishing the county unit plan.



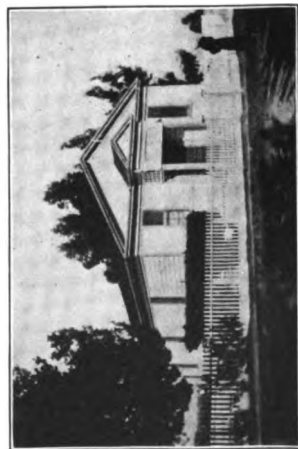
Las Lomitas District School.



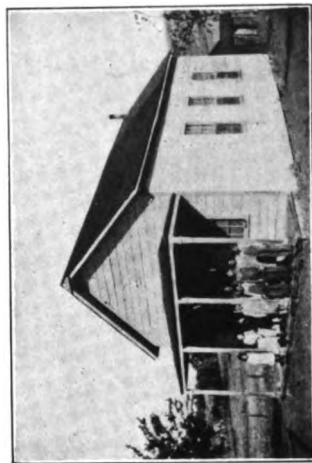
Bell District School.



La Honda District School.



Millbrae District School.



West Union District School.

TYPICAL SCHOOLS OF SAN MATEO COUNTY.



## Chapter III.

### THE PROPOSED EDUCATIONAL REORGANIZATION.

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#### I. ORGANIZATION AND ADMINISTRATION.

On the basis of the foregoing list of findings and other facts disclosed by the survey it is proposed to outline a plan for reorganizing the school system of San Mateo County to meet the needs of the county as a whole, and to make it in harmony with the present economic and social conditions of this larger community.

It is proposed, therefore, to submit a working plan, in which the county shall be the unit, all district lines now existing to be obliterated, and in which all educational authority shall be vested in a board of education, elected by the people of the county. This board shall then select the officials and experts needed, fix their salaries, and be responsible to the people for maintaining an efficient school system. It is further proposed that taxes for educational purposes shall be levied by this board, and funds shall be distributed among the schools according to their respective needs, regardless of whether it is located in a wealthy or a poor community.

It must, however, be said at the outset, that such a reorganization is not as yet possible under the school laws of California, which still authorize the district system. The law also makes the county superintendent of schools a political officeholder, subject to the campaigning process, and few of the capable men in education will seek the position under these conditions.

The following plan is suggested, therefore, as having been formulated upon the basis of a careful study of the possibilities of one county in this direction.

#### BOARD OF EDUCATION.

I. The educational affairs of the county shall be delegated to a board of education consisting of five members, none of whom shall hold any educational position during their term of office; they shall be elected by the people of the county at elections held for that purpose only, each member to serve for a term of five years; and they shall serve without compensation, except for traveling expenses incurred when acting for the county.

It will be seen that these recommendations follow closely the plan adopted by most American cities. Leading educators agree that

for purposes of administration of schools there should be little difference in the organization of cities and counties.

The proposal that the members shall hold no other educational position is made in order that men may be secured who are interested in education in its broadest sense; who are sound, practical business men or farmers; and who, by experience and several years of residence in the county, are familiar with its conditions and needs. Such persons will best represent the people by whom they are elected, and their sound business judgment will be a valuable asset to the educational system.

The members are required to serve without pay, so that only public-spirited citizens, well established in the county, who have the best interests of the county at heart, may be eligible. This will be a position open only to this type of men and women.

It is expected that one member should be elected each year. This will prevent any sudden upheaval, such as might be produced if several members came into office at the same time, and will still permit a group of members to work together for a sufficient period to assure uniform management.

II. The board of education shall be responsible to the people of the county for a well-established and efficiently conducted system of schools and shall have the following powers:

1. To appoint a superintendent of schools, selecting him from any part of this or any other State; to fix his salary and prescribe duties and powers not herein delegated to him.

2. To appoint for each school a board of local trustees consisting of three members of the community.

3. To levy taxes for school purposes and to apportion the same to all parts of the county on an equitable basis.

4. To appoint principals of all schools and to secure such other officers, experts, clerks, etc., which may be necessary to a modern system of public schools.

5. To locate all schools and to erect buildings wherever needed.

6. To perform all duties and exercise all authority usually devolving upon boards of education in cities and towns.

7. To prescribe a course of study prepared by the experts whom they shall appoint; said course of study to be of sufficient flexibility that the needs of all communities will be served.

8. To consolidate schools; to cause any school to be abandoned; and to provide means of transportation for pupils from their homes to the school.

9. To act as a final deciding body for the county upon all questions which may arise involving the system of schools under their jurisdiction, with appeal from their decisions only to the State superintendent of public instruction.

The people of the county having once elected and placed their confidence in the board of education, with these powers and duties, would be able to secure a business administration, free from petty politics and the intrusions of local interests.

## THE SUPERINTENDENT OF SCHOOLS.

III. The superintendent of schools shall be appointed by the board of education for an indefinite term, and he shall continue in office until his resignation, or until his removal by the board upon written charges, or for incapacity to continue further the fulfillment of his duties. •

He shall be ex officio secretary of the board of education, meeting with them and advising them in matters under their jurisdiction, with power to speak upon any subject, but shall not be privileged to vote.

IV. It shall be the duty of the superintendent of schools:

1. To superintend the schools of the county.
2. To act as secretary of the board of education.
3. To act as the agent of the State in the examination for teaching certificates.
4. To prepare, and furnish for the approval of the board of education, a course of study for the schools.
5. To prepare the forms, blanks, etc., necessary to carry on the work of his office.
6. To call and conduct institutes and teachers' meetings.
7. To recommend persons to be appointed principals by the board of education, and to submit lists of teachers to the boards of local trustees.
8. To recommend the appointment or the dismissal of any principal or teacher.

It is to be fully understood that the superintendent of schools is to be given sufficient authority to perform properly the duties delegated to him as the chief executive of the educational system of the county. As the board of education is authorized to select the superintendent from this or any other State, it will naturally follow that he will be a capable man of broad experience and training, and should be given unlimited authority in matters requiring expert skill. The board is further authorized to pay a salary which will secure the best ability.

The superintendent should have under his direction a complete office force. There should be two assistant superintendents, one of whom should act as supervisor of the schools, and the other to manage the affairs of the office, preparing blanks, documents, meeting visitors, etc. Under the present system these matters take much of the superintendent's time from more important duties. There should also be one person to act as clerk and stenographer.

This will leave the superintendent free to attend to the larger duties of administration, to represent officially the board of education, and to see that the functions of his office are properly performed.

The superintendent is given power to recommend and dismiss teachers and principals and thus to secure for the county the best instruction obtainable. The competent, well-selected body of teachers which would result from this provision would alone be worth to the county many times the money expended in employing an able executive.

It is recommended that a salary of not less than \$3,500 per year be paid to the superintendent.



## BOARDS OF LOCAL TRUSTEES.

V. The board of education shall appoint for each school in the county a board of local trustees consisting of three members, each of whom shall be a resident of the community served by the school, and shall serve three years, one member retiring each year.

It shall be the duty of the board of local trustees to care for all buildings, lands, and property intended for school purposes and to make needed repairs, after first notifying and receiving the approval of the board of education through the superintendent of schools; and they shall be responsible to the county for the property under their care.

They shall appoint janitors upon the recommendation of the principal of the school and shall provide all improvements necessary to keep the buildings and grounds in the order prescribed by the board of education.

The principal of each school shall be ex officio secretary of the board of local trustees for his school and shall meet with them and advise them, but shall not have a vote, if that method of decision should at any time become necessary.

The members of the boards of local trustees shall serve without pay and shall be subject to dismissal by the board of education only upon written charges.

The board of education shall pay all expenses incurred by the boards of local trustees in performing their duties.

The boards of local trustees shall, upon the recommendation of the principal, appoint all teachers and assistants necessary to the school under their care: *Provided*, That no teacher or assistant be appointed or dismissed by them except with the approval of the board of education through the superintendent of schools.

The proposal to authorize a board of local trustees for each school is in no way to be construed to mean the segregation of each school into a district or definite community. There are to be no district lines other than the attendance lines which may need to be drawn between certain schools, and the plan of consolidation of schools to be proposed will permit only 13 such boards to be appointed.

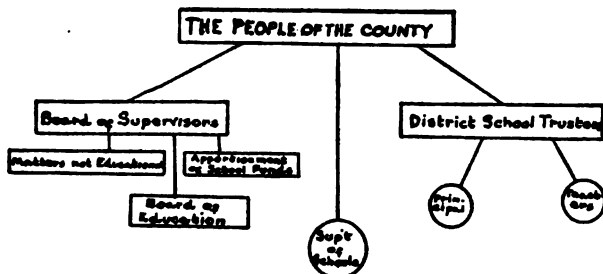
This plan has been in use in the counties of Maryland, and has been shown to be of very practical value. This is especially true of Baltimore County, which does not include the City of Baltimore and which is strictly a rural community, much the same as San Mateo County.

## BOARDS OF LOCAL TRUSTEES IN TOWNS.

VI. In any incorporated town or city having two or more schools the board of local trustees shall consist of five members, appointed in the same manner and exercising the same authority as boards of local trustees herein provided for one school, except that they shall have under their care all schools, both elementary and secondary, within the limits of the incorporated town or city which they represent; and the superintendent of schools shall select one principal to act as secretary of the said board of local trustees under the same provisions made for one school.

In order to prevent the organization of two or more boards of local trustees in any town, such as exist now for high schools and

elementary schools in Redwood City, San Mateo, and Halfmoon Bay, one board of five members is provided for. This board would have jurisdiction over all the schools in the town, and thus there would be no segregation of the high schools from the elementary schools, as at present.



### THE PRESENT ORGANIZATION.

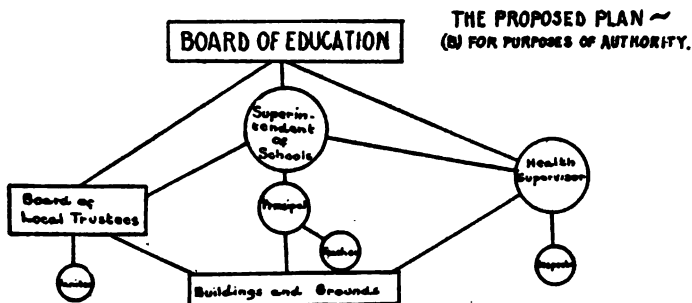
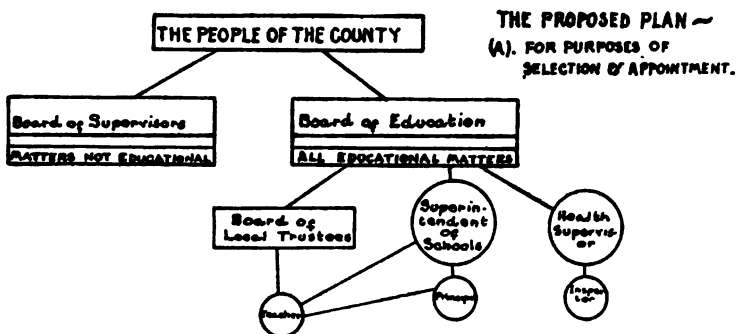


CHART 18.

The boards of local trustees, it will be seen, are not granted *educational* authority. They are authorized to care for buildings, grounds, and school property belonging to the county, and to appoint teachers recommended by the principals and the superintendent. Matters requiring expert ability are to be acted upon by persons appointed and paid for that purpose. Thus the people of each community are to be assured of skilled and competent persons in authority, and

important matters are not subjected to manipulation by some local politician, or an inefficient school board, such as are often in power under the present district system.

#### COUNTY HEALTH SUPERVISOR.

It is further recommended that the board of education appoint a county health supervisor. There is already provided by the county a health officer, and this position could easily be combined with that of health supervisor, who would act as medical inspector for all the schools of the county. He should provide and direct health examinations of pupils and teachers, and a regular system of inspection of school buildings and premises. He should declare and lift quarantines on schools, pupils, homes, or neighborhoods, and should be responsible to the board of education, through the superintendent of schools, for the sanitation of buildings and grounds, and for the proper care and treatment of all physically defective children.

## II. THE PROPOSED SYSTEM OF CONSOLIDATION.

The proposed plan of consolidating the schools under the county-unit plan can best be shown by means of the maps prepared for this purpose. The map of the county on page 20 shows the present system and the number of small schools it sanctions. The county is divided into 36 small districts, each of these having its board of trustees, who erect buildings, employ teachers, and maintain school wholly independent of the other 35 districts. The map on the following page shows the schools as they would be under the plan suggested by this study, with fewer, larger, and better schools located at the most convenient points.

The proposals for the reorganization will be of two kinds: First, to make use of present well-organized school centers, and by enlarging their equipment bring in children from adjoining communities, and leave them practically as they are; second, to erect new schools at favorable and convenient points, abolishing all other schools. In both cases, children living at a distance from the school are to be transported free of charge from their homes to the school and back to their homes each day.

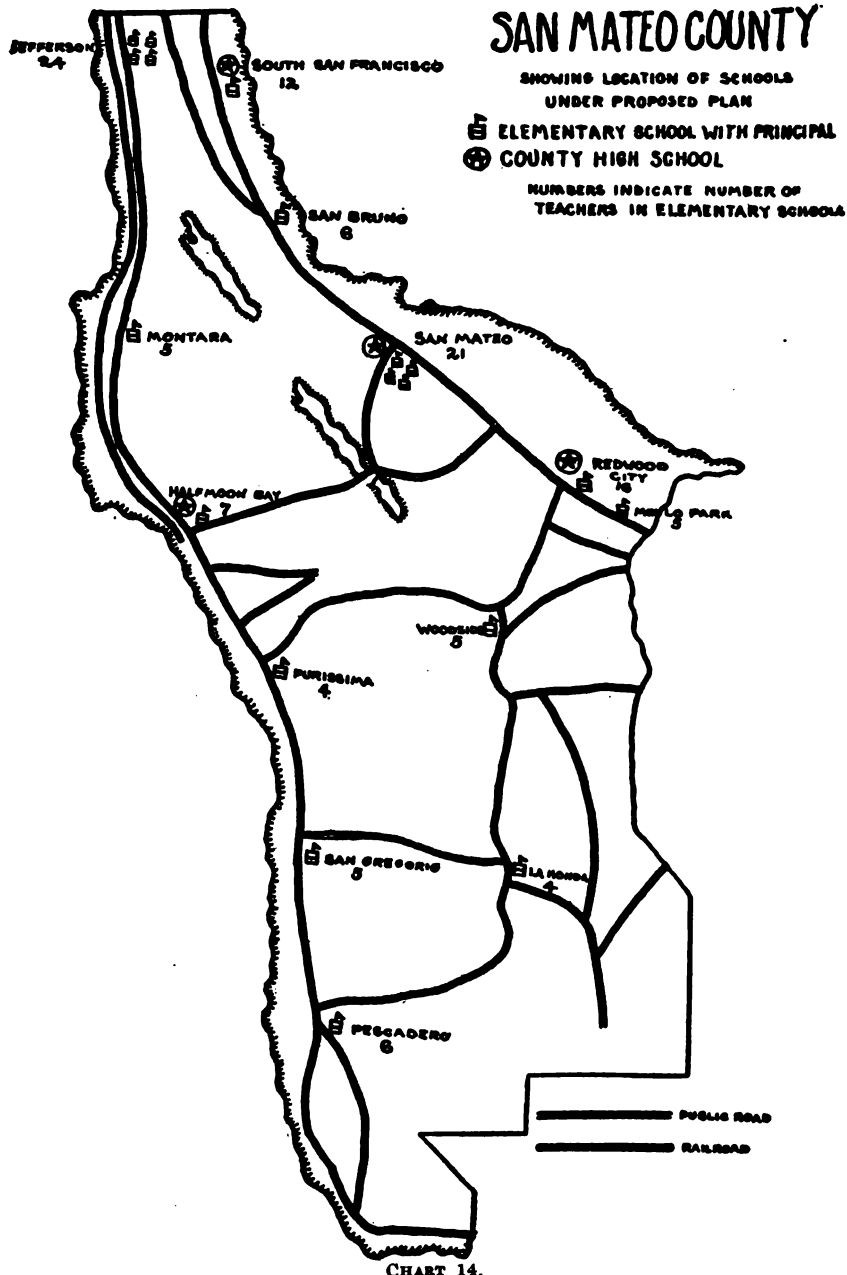
#### OLD SCHOOLS TO BE USED.

There are seven points at which consolidation may take place by enlarging the schools at places now provided with good schools. These will be taken up individually, their present equipment briefly described, and suggestions made for enlargement.

It is proposed to consolidate all the schools of the county, without district lines, into 13 school centers, each with a supervising principal, and no school with less than four teachers.

The following are the present schools to be enlarged:

1. *South San Francisco*. Large school with principal and 11 teachers. High school with three teachers. A new high-school building needed, and children



should be brought from the present visitation district. One wagon or automobile bus necessary. Electric car lines may be used.

2. *San Bruno*. Has at present a principal and 5 teachers. School should be enlarged to accommodate children from Lomita Park and part of Millbrae districts. Possibly one wagon needed. Electric line may be used. No more teachers necessary.

3. *San Mateo*. Has 4 elementary schools with supervising principal. Has 20 elementary teachers and 3 special supervisors. Should accommodate pupils within present district, which is sufficient territory. The Burlingame school should become part of the system. One transportation automobile is now in use at Burlingame and should be continued as at present. Another should be run from San Andreas Lake to bring children from the Laguna and Hillsborough districts.

The high school in San Mateo is in excellent condition and should be maintained as at present, except that means of transportation should be provided to bring more children from the rural communities.

4. *Redwood City*. Large elementary school with supervising principal and 15 teachers. Should accommodate children from Belmont and West Union districts. Probably two wagons will be necessary. An addition to the present building or a new building required. Union high school here in good condition. Has principal and 7 teachers. Should transport pupils from country and encourage larger attendance.

5. *Menlo Park*. New school building just completed. Has 3 rooms and 2 teachers. Could easily be arranged to have 4 rooms, 4 teachers, and a principal. Should accommodate children from Las Lomitas and Ravenswood districts. One automobile bus would be sufficient.

6. *Half Moon Bay*. Elementary school with principal and 4 teachers; should be enlarged, 2 more teachers added, and should accommodate children from Mirimar, Philarcitos, Laguna, and part of Higgins districts. This could be made a fine example of a consolidated elementary school. Some provision is now being made for transportation. Three automobile busses or wagons required.

Union high school here has principal and 4 teachers. Present building may need addition. Should be commended for the large per cent of rural children now enrolled.

7. *Jefferson*. Has supervising principal, 4 schools, and 23 teachers. Splendid system, well supervised. Should accommodate children from San Pedro district. One bus required. Several San Francisco high schools are within 20 minutes' ride on electric cars, and children should be encouraged to attend these, county paying car fare.

#### NEW CONSOLIDATED SCHOOLS NEEDED.

The remaining six of the schools are to be entirely reorganized. The following is a description of the new consolidated schools:

1. *Woodside* (Greensburg district). Here a new school should be built to accommodate all the children in the vicinity of Woodside and the Portola Valley. Possibly location should be somewhat changed, but should be near Woodside. Should have a principal and 4 teachers. Two wagons or automobile busses required. Estimated cost of new building, \$25,000.

2. *La Honda*. A new school should be built to accommodate children of La Honda, Wurr, Bell, and Alpine districts. Principal and 3 teachers. Three wagons or automobile busses required. This is a splendid location for a future large consolidated rural school, and should prove to be one of the most attractive places in the county for a rural educational center. Would increase the value and attractiveness of property. Estimated cost of building, \$20,000.

3. *Pescadero*. New building should accommodate children of Pescadero, Pigeon Point, Sunnyside, and Pomponio districts. Principal and 5 teachers. Four wagons required. Estimated cost of building, \$25,000.

4. *San Gregorio* (Seaside district). Should accommodate children of Seaside, San Gregorio, and Tunis districts. Principal and 4 teachers. Two wagons or busses necessary. Estimated cost of building, \$20,000.

5. *Purissima*. Children of Purissima and part of Higgins districts. Would be small to start with, but would increase in attendance. Principal and 3 teachers. One wagon or automobile required. Cost of building, \$15,000.

6. *Montara*. New building to accommodate children from Montara, Tobin, Mirimar, and part of Millbrae districts. Transportation largely on Ocean Shore Railway. One wagon required. Principal and 4 teachers. Cost of building, \$25,000.

*Summary of proposed consolidated schools.*

Location.	Probable enrollment.	Teachers and principals.	Wagons or busses.	Proposed change.	Cost of building.
South San Francisco.....	468	12	1	Addition.....	\$2,000
San Bruno.....	264	6	1	None.....	
San Mateo.....	1,340	21	1	do.....	
Redwood City.....	486	16	2	Addition.....	5,000
Menlo Park.....	109	5	2	do.....	5,000
Half Moon Bay.....	223	7	3	do.....	5,000
Jefferson.....	924	24	1	None.....	
Woodside.....	100	4	3	New building.....	25,000
La Honda.....	40	4	3	do.....	20,000
Pescadero.....	176	6	4	do.....	25,000
San Gregorio.....	66	5	2	do.....	20,000
Purissima.....	50	4	1	do.....	15,000
Montara.....	112	5	1	do.....	25,000
Total.....	4,347	120	24		147,000

### III. THE COST OF THE PROPOSED SYSTEM.

The total expenditure for elementary education in the county during the year 1912-13 was \$218,098.50. This was distributed as follows:

Salaries of 180 teachers.....	\$107,334.75
Salaries of 6 principals.....	11,100.00
Janitors, supplies, etc.....	45,085.19
Buildings and sites.....	52,461.62
Library books.....	2,116.94
Total.....	218,098.50

Each of these items will be taken separately for purposes of comparison with the proposed system.

#### SALARIES.

It will be seen that the greater portion of the expenditure for the elementary schools is for teachers' and principals' salaries. It will also be seen by the table on page 42 that the proposed system has

increased the number of principals from 6 to 13, and has decreased the number of teachers from 130 to 107. The following table compares the two systems in the expenditure for salaries:

Under present system:

Salaries of 130 teachers (average \$825) .....	\$107, 334
Salaries of 6 principals (see preceding table) .....	11, 100

Total .....	\$118, 434
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Under proposed plan:

Salaries of 107 teachers (average \$825) .....	88, 275
Salaries of 6 principals above .....	11, 100
Salaries of 7 additional principals (average \$1,500) .....	10, 500

Total .....	109, 875
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Saving annually by proposed plan .....	8, 559
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#### JANITORS AND SUPPLIES.

The present expenditure for janitors in most schools is insufficient, and the poor service resulting from this has been pointed out in the survey of the rural schools. The janitor is said to be, next to the principal, the most important officer in the school. To secure good service, and to insure healthful and sanitary conditions, requires an expenditure, which, when well directed, is the very essence of economy. To employ one of the older boys in the school to build the fires and occasionally sweep out, while much more humane than leaving the burden with an overworked teacher, is a bad investment for the community.

The proposed system will require the services of 20 janitors, and it is proposed that they be paid an average salary of \$800 per year. Each will, of course, be under the supervision of a principal.

The amount now expended for supplies is not kept in a separate account, and the exact sum is not known. Nevertheless it is small and is divided among 36 school districts. It is assumed that \$1,000 for each school per year will be an ample average. This is to be distributed by the superintendent of schools according to the needs of each school.

Expenditure for janitors and supplies:

Present expenditure .....	<u>\$45, 065</u>
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Proposed expenditure—

20 janitors, at \$800 .....	\$16, 000
Supplies, at \$1,000 per school .....	13, 000

Total .....	29, 000
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## BUILDINGS AND SITES.

The expenditures for buildings and sites for elementary schools in the county for the past eight years are given in the following table:

1906-7-----	\$35,269	1910-11-----	\$85,987
1907-8-----	36,886	1911-12-----	25,408
1908-9-----	41,216	1912-13-----	52,461
1909-10-----	36,938	1913-14 (to date)-----	101,500

This gives an average annual expenditure, since 1906, of approximately \$52,000 for this purpose. The amount will probably be greatly increased during the next few years, as many of the old district buildings must be replaced.

It will be fair to assume, then, for purposes of comparison, that during the next 10 years the expenditure for buildings and sites will be at least equal to the average above and will be not less than \$520,000 during the decade.

The proposed plan, as outlined in Section II, calls for six new buildings and additions to present buildings, involving an expenditure of \$147,000. During the 10 years these buildings would need practically no change or repair. There would, however, need to be a few new buildings and additions, owing to the increased population. Allowing for these the sum of \$200,000, without considering the increased value of property, which would permit of even larger expenditure, there is still a saving to the county:

## Under present system:

Expenditure for 10 years (average, \$52,000)----- \$520,000

## Under proposed plan:

Cost of six new buildings----- \$130,000

Cost of new additions----- 17,000

New buildings during 10 years----- 200,000

Proposed expenditure for 10 years----- 347,000

Saving the county----- 173,000

## TRANSPORTATION OF PUPILS.

This is the greatest item of continuous expense in the proposed plan. As has already been shown, the securing of the right educational opportunities for all the children of the county will necessitate, instead of one small school in each small community, the enlargement of communities and the provision for each of a large, well-equipped school with a principal and several teachers.

Since these schools can not be within walking distance from all the homes they will serve, it is proposed that all children living at a greater distance be given means of transportation, free of all charge to themselves or their parents.



Free transportation of pupils to and from schools has been clearly demonstrated in various parts of the United States to be the means by which a practical, economical, and modern solution of one of the greatest rural problems may be provided.

There are several methods in use in different parts of the United States for the transportation of pupils. In Illinois a common plan is for the school to employ some one in the community to carry the pupils in a vehicle provided by himself and pay him at a certain rate per day, per hour, or per pupil. It requires of his time from two to four hours per day, and he is paid from \$1.50 to \$2 for each day he renders service. He is free to do any work he may wish to do for the remainder of each day.

In some places pupils secure commutation tickets on railroads or trolley lines. This method is now in use by pupils of the union high schools at Half Moon Bay and Redwood City. The cost of this for pupils living at the greatest distance from the school is \$2.80 per month, or about 14 cents per day.

In Imperial County, Cal., one consolidated school has arranged with an enterprising young man who owns an autotruck to carry the pupils to and from the school at 15 cents per day per pupil. He received last year about \$100 per month from the school and had the use of his machine for the remainder of the day and on Saturdays for carrying freight, delivering milk, etc. He received a very substantial income from his investment, increased the attendance of the school, and set up a means of travel in the community which was beneficial in many other ways.

In Ohio, Indiana, and other States the county or township purchases and maintains wagons or automobiles for transportation and other school purposes. The investment once made, the cost for upkeep is small in proportion to the amount of service rendered. These vehicles can be used for hauling, and are often a paying investment for the school rather than a burden of expense. A good, wide-awake principal, with an interested and enthusiastic group of farmers' boys, can easily make the expenditure worth while in many ways.<sup>1</sup>

There will be proposed three definite ways by which San Mateo County might furnish transportation for pupils under the plan of consolidation:

*Plan I.* Under this plan the county will allow to each school the sum of 15 cents per pupil per day, and each principal will be authorized to secure transportation for the pupils in any available way; 15 cents per day is a common average, and permits of either employing a driver with his own vehicle or of railroad or electric car transportation. This amount will be sufficient to pay a driver \$3 per day to carry 20 pupils or will buy commutation tickets for 24

<sup>1</sup> For methods of consolidation see bulletin of the Bureau of Education, 1914, No. 30,

pupils at \$2.50 per month each. Local conditions would, no doubt, in many cases provide means yet more practical and economical.

*Plan II.* The county shall employ men in the vicinity of each school to transport the pupils, each driver to receive not more than \$3 per day. This will require the services of 24 men. The drivers are to be free during the entire day to do whatever they wish, but to be responsible to the superintendent of schools for carrying the pupils.

*Plan III.* The county under this plan would purchase 24 automobile busses to be distributed as proposed (p. 41). These should be purchased for approximately \$2,000 each. Drivers should be employed by the county at an estimated cost of \$50 per month each, and all expense of upkeep should be paid by the county.

The cost of each of these plans is shown by the following tables. This is on the basis of 502 pupils, as will be shown later.

#### ESTIMATED COSTS OF VARIOUS PLANS OF TRANSPORTATION.

##### Plan I:

502 pupils at 15 cents per day-----	\$75.30
200 days (10 months) at \$75.30-----	\$15,060

##### Plan II:

24 drivers at \$3 each per day-----	\$72.00
200 days at \$72-----	14,400

##### Plan III:

24 automobile busses at \$2,000 each, owned by the county--	\$48,000
24 drivers at \$50 per month (calculated for 10 months)---	12,000
Upkeep 24 machines at \$30 per month-----	7,200
Total cost per year, not including investment-----	19,200

The total annual cost, then, of each of the three plans is as follows: Plan I, \$15,060; Plan II, \$14,400; Plan III, \$19,200.

Which of these plans should be adopted, or to what extent each should be used, would be a matter for the people of the county to decide. It is probable that under the proposed system of consolidation shown here all three methods would be in use in the county.

For purposes of estimating costs, etc., however, it will be assumed that the board of education would wish to purchase at least 10 auto-busses under Plan III, and that the remainder of the transportation be brought about under Plans II and I.

It will be fair, then, to estimate the cost of transportation at \$16,000 per year. Still there is no question but that the superintendent of schools and the principal, as well as the people of the community, could bring this cost down to a nominal figure.

The following table summarizes the probable status of transportation following out the proposed plans:

*Transportation of pupils.*

Schools.	Number of pupils to transport.	Number of wagons needed.	Other means of transportation.
South San Francisco.....	20	1	Electric railroad.
San Bruno.....	50	1	Railroad.
San Mateo.....	22	1	Do.
Redwood City.....	50	2	Do.
Menlo Park.....	40	2	
Half Moon.....	60	3	Do.
Jefferson.....	20	1	Do.
Woodside.....	40	2	
La Honda.....	40	3	
Pescadero.....	60	4	
San Gregorio.....	40	2	
Purissima.....	20	1	
Montara.....	40	1	Do.
Total.....	502	24	

It should be stated at this point that no pupil under the suggested plan will need to attend an elementary school at a distance of more than 6 miles from his home, and in all cases he is to be transported free by the county.

**THE ABANDONED SCHOOLS.**

The foregoing plan of consolidation permits of the abandonment of 23 schools, and would lead to the subsequent disposal of buildings and grounds. The following table summarizes this asset:

*Disposal of buildings and grounds after consolidation of schools.*

Names of schools.	Number of pupils.	Value of property.		Pupils would be transported to—
		Buildings.	Grounds	
Alpine.....	10	\$450	.....	La Honda.
Bell.....	19	1,500	\$300	Do.
Belmont.....	50	2,000	6,000	Redwood City.
Higgins.....	14	800	200	Purissima.
Hillsborough.....	22	0	0	San Mateo.
Laguna.....	10	0	500	San Mateo and Half Moon Bay.
Las Lomitas.....	20	3,100	1,200	Menlo Park.
Millbrae.....	30	1,000	1,500	San Mateo.
Lomita Park.....	50	5,000	1,500	San Bruno.
Miramar.....	42	5,000	2,500	Half Moon Bay.
Pigeon Point.....	21	650	150	Pescadero.
Pilarcitos.....	21	500	200	Half Moon Bay.
Pomponio.....	20	700	100	Pescadero.
Portola.....	50	7,600	2,500	Woodside.
Ravenswood.....	13	1,600	900	Menlo Park.
San Gregorio.....	14	400	200	San Gregorio.
San Pedro.....	17	6,280	1,000	Jefferson.
Sunnyside.....	10	800	100	Pescadero.
Tobin.....	17	0	0	Montara.
Tunis.....	19	1,400	200	San Gregorio.
Visitation.....	13	50	200	South San Francisco.
West Union.....	10	100	100	Redwood City.
Wurr.....	10	800	100	La Honda.
Total.....	502	30,700	19,450	

The figures for the value of buildings and grounds as given in this table are the official values of the buildings and grounds at present, as recorded in the county offices. The buildings, of course, could not be sold for the values here given; but it should be fair to estimate the immediate selling value of all buildings and grounds to be abandoned at \$40,000.

The proposed system would cost, for maintenance, approximately \$199,575 per year, as estimated in the foregoing pages. This may be summarized as follows:

*Cost of maintenance of proposed system.*

Salaries of teachers and principals.....	\$109, 875
Salaries of janitors.....	16, 000
Transportation of pupils.....	16, 000
Supplies.....	20, 000
Library books (estimated).....	3, 000
Buildings (one-tenth cost).....	34, 700
<hr/>	
Total annual cost.....	199, 575
Total annual cost of present system.....	218, 068
<hr/>	

Annual saving of proposed system.....	18, 523
---------------------------------------	---------

There remain yet to be purchased, however, on the basis of the plan adopted for transportation, 10 automobile busses at \$2,000 each. This is an expenditure of \$20,000. It seems certain that these could be easily provided by the county, when their salable abandoned property amounts to \$40,000.

The office of superintendent of schools should, under the suggested plan, be maintained as at present by means of appropriations from the general fund of the county. But, inasmuch as increased expenditure is asked, it may be well to include the expense of administration in the cost of the system.

Annual saving of proposed system.....	\$18, 523
Salary of superintendent.....	\$3, 500
Salary of deputy superintendent.....	2, 000
Salary of assistant superintendent.....	1, 500
Salary of clerk.....	800
<hr/>	

Total.....	7, 800
------------	--------

Net amount saved annually.....	10, 723
--------------------------------	---------

It has not been the purpose of this study to show a cheaper system than the present one or to urge its adoption because of less cost than the county now expends. To put education on a commercial basis and buy it at the lowest possible figure is not consistent with the American spirit of progress. The reorganization has been suggested as a means to better educational efficiency, and the cost

of maintaining it is less than the present expenditure only because the money is more economically spent. The small, one-teacher schools and the drawing of narrow district lines about them is clearly as expensive as it is undemocratic and unjust.

The right kind of education for the children of San Mateo County or of any other locality can not be cheaply bought. It would be only to the economic and social welfare of the community if the expense of better schools were much greater than the present cost of their district system.

The writer herewith submits, after carefully considering all conditions and possibilities, the proposed system of consolidated schools for the people of San Mateo County. These are all to be modern, sanitary, well equipped, and beyond comparison with the present schools in efficiency and practical value. Yet the cost will be even less than the amount now expended.

#### IV. SUGGESTIONS CONCERNING HIGH SCHOOLS.

The map on page 23 shows the location of the present high schools. As has been said, the practical value of consolidation has been shown in these institutions, and all are doing commendable work.

It will be seen, however, that but three of the high schools are entirely organized, and that the southwestern and central portions of the county are not provided for. It can not be expected that children from these communities will come as far as Half Moon Bay or Redwood City to attend high school, and those institutions would not in any way be drawn upon if secondary school advantages were placed within reach of them.

The expense of this would of necessity be additional to the expenditure required for the elementary school system proposed, but the rural children who live in the southern part should not be deprived of equal high-school advantages with the children of the northern part because of the cost.

Suggestions have already been made concerning the attendance of high schools in San Francisco for the children of the northwestern portion of the county.

The following proposals are offered:

1. That all the present high schools and all others to be established be under the direction of the county board of education and the superintendent of schools as herein prescribed.

2. That the school at South San Francisco be made a complete four-year high school, and at least two additional teachers employed.

3. That a new four-year county high school be established at Pescadero.

4. That an intermediate school for the eighth, ninth, and tenth years be established in connection with the consolidated rural school proposed for La Honda.

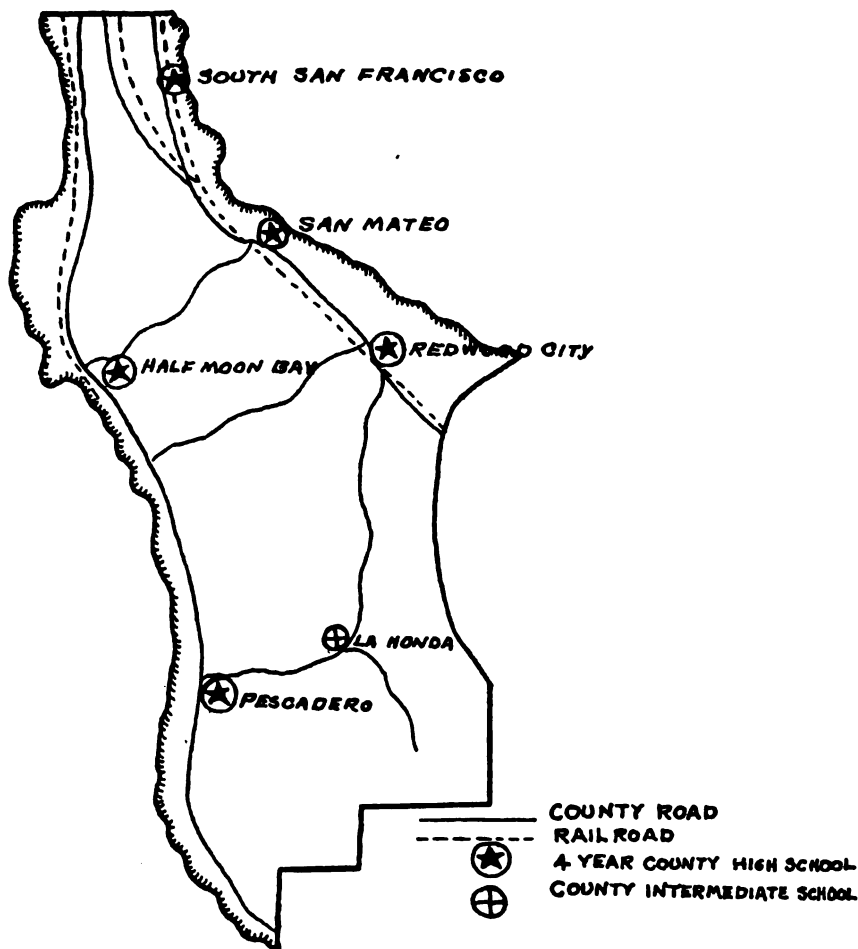


CHART 15.—Suggested plan for high schools.

#### A FEW SELECTED REFERENCES ON RURAL SCHOOL ADMINISTRATION AND CONSOLIDATION.

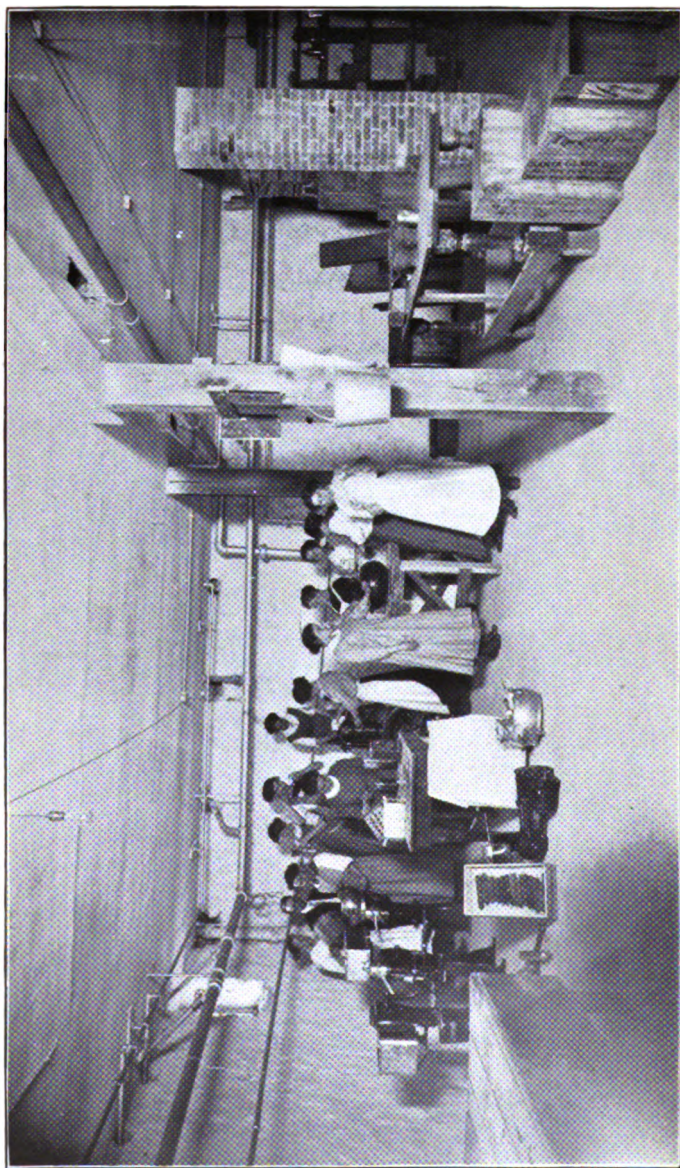
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ONEIDA COUNTY TRAINING SCHOOL.  
A corner in the Agricultural Laboratory.

DEPARTMENT OF THE INTERIOR  
BUREAU OF EDUCATION

BULLETIN, 1916, No. 17

THE WISCONSIN COUNTY TRAINING  
SCHOOLS FOR TEACHERS IN  
RURAL SCHOOLS

BY

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EDUCATION, MADISON, WIS.



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# THE WISCONSIN COUNTY TRAINING SCHOOLS FOR TEACHERS IN RURAL SCHOOLS.

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## HISTORICAL STATEMENT.

The movement in Wisconsin for the establishment of schools having for their special object the preparation of teachers for country schools began in the early nineties. There was considerable discussion of the matter during the following six or eight years, and finally, in 1899, a law was enacted by the legislature giving "the county board of supervisors of any county within which a State normal school is not located the authority to appropriate money for the organization, equipment, and maintenance of a county training school for teachers of the common schools."

The law of 1899 limited the number of training schools that might be established to two. All control of the school was placed in the hands of a county training school board consisting of three members, one of whom should be the county superintendent of schools, the other two elected by the county board for a term of three years. The State superintendent was given supervision over the schools and was required to prescribe the course of study and to determine the qualifications of the teachers. The school was to be maintained at least 10 months during the year, and the secretary of the training school board (the county superintendent) was required to make a report at the end of the school year, setting forth the facts relating to the cost of maintaining the school, the character of the work done, etc. Upon the receipt of this report the State superintendent was to make a certificate to the effect that the training school had been maintained according to law and to file such certificate with the secretary of state. A warrant was then drawn payable to the county treasurer "for a sum equal to one-half the amount actually expended for instruction in such school during the year, providing that the total amount so apportioned shall not exceed \$2,500 in any year."

The first two counties to avail themselves of the opportunity of establishing a county training school were Marathon and Dunn. Schools were accordingly established at Wausau and Menomonie. At Wausau 56 students were enrolled during the school year 1899-1900 and 57 at Menomonie. During the school year 1900-1901 Menomonie enrolled 58 and Wausau 76. When the legislature met in 1901 the law of 1899 was amended so that six such

schools might be organized in the State. A section was also added to the law providing for the certification of the graduates of the training schools.

In 1901 a training school was organized in Manitowoc County, and this was followed in 1902 by the organization of training schools in Waupaca, Buffalo, and Richland Counties, thus making the total of six schools authorized in the State.

The legislature of 1903 further increased the number of schools that might be established from six to eight. A provision was added in that year to make it possible for two counties to organize a training school jointly. A section was also added providing that nonresident students might attend and their tuition be paid by the counties in which they lived.

As soon as an opportunity was offered for establishing more training schools, Wood County made application, and a school was organized at Grand Rapids in 1903.

When the legislature met in 1905 the number of possible training schools was increased from 8 to 12, and an amendment was also made to the law providing that—

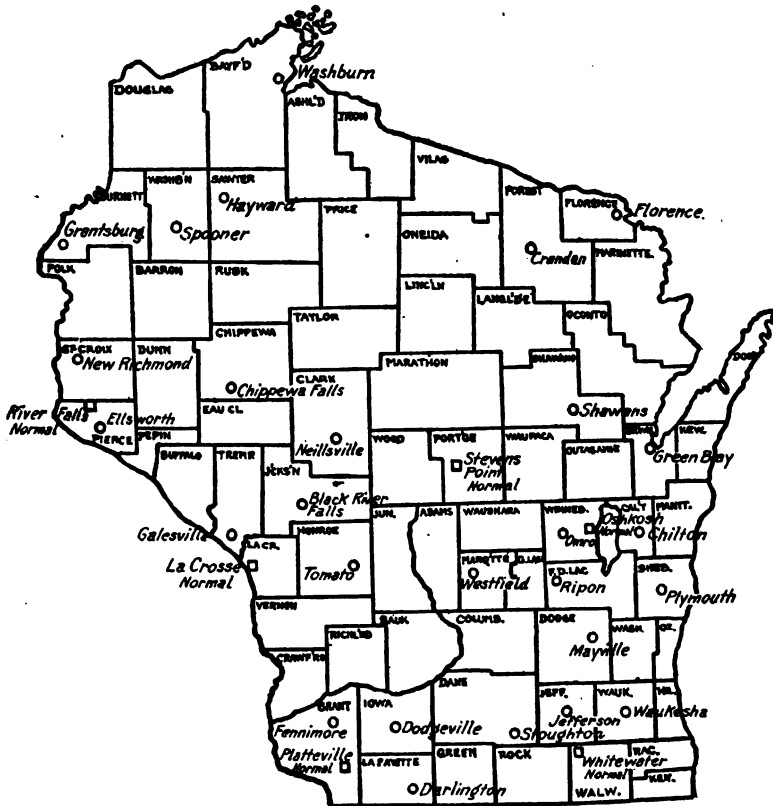
the secretary of state shall draw his warrant, payable to the treasurer of the county maintaining such school, for a sum equal to two-thirds the amount actually expended for maintaining such school during the year, provided that the total amount so apportioned shall not exceed \$3,500 in any one school year.

A provision was also added to the effect that, in case the graduate of a training school had never taught, he should be given a certificate having full force and effect for one year only from the date of issue. When this graduate furnishes evidence of at least one year of successful teaching the county superintendent will certify to that fact by signing the training school certificate, thus making it effective for two additional years.

In September, 1905, Eau Claire, Marinette, and Polk Counties established training schools. In 1906 Lincoln and Sauk Counties made application, thus completing the number authorized by the legislature.

The legislature of 1907 extended the number of training schools that might be organized from 12 to 20 and further provided legal qualifications for teachers in the county training schools. The provision made in this respect was that no person should be employed as a teacher in a training school who was not legally qualified for the position of principal of a free high school having a four-year course of study. This provision did not apply to teachers then engaged in the work. A further restriction was enacted providing that no member of any county training school board should be employed either as principal or as assistant during the term for which he was elected or appointed as a member of the board.

In 1907 four counties made application for the establishment of training schools, namely, Barron, Lincoln, Rusk, and Vernon. The following year Columbia, Crawford, and Waushara Counties established schools. In that year there was also established a joint training school by Door and Kewaunee Counties, at Algoma. Twenty schools were now in operation, and no other schools could be organized until the legislature had taken action.



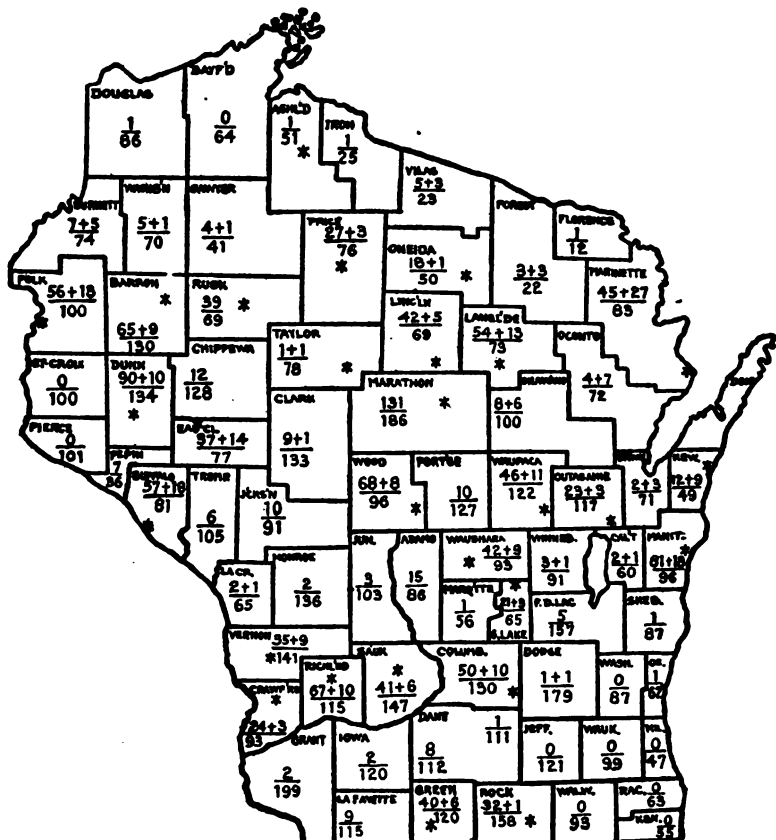
Map of Wisconsin showing the high schools having teachers' training courses and also the State normal schools having courses for the training of country teachers.  
 ○ High schools. □ Normal schools.

The legislature of 1909 made a few minor modifications in the law providing for joint training schools and for the collection of tuition of nonresidents and increased the number of training schools that might be organized to 26. In the fall of the same year Green, Green Lake, and Price Counties opened training schools, and in 1910 Oneida County was added to the list.

In 1911 the legislature increased the possible number of training schools from 26 to 30 and amended the law in such a way that "a person who holds a State license or certificate may become an assistant in a training school."



When the legislature met in 1913 the number of possible training schools was increased from 30 to 33. At present there are 28 schools in operation, Ashland County having established one in 1914.



Map of Wisconsin showing the distribution of training schools and training-school graduates throughout the State. The number below the line indicates the number of one-room country schools in the county; the first number above the line indicates the number of one-room country schools taught by training-school graduates; and the second number above the line indicates the number of graded positions held by training-school graduates. The stars indicate the location of the 28 training schools.

The legislature of 1913 also passed two other amendments. Regarding State aid for these schools, the law now provides that instead of paying "a sum equal to *two-thirds* the amount actually expended for maintaining such school during the year," the State pays—

an amount equal to the sum expended for the wages of duly approved or qualified teachers in the school for at least 10 months during the school year, provided that a school employing two teachers shall not receive to exceed \$3,000, and a school employing three or more teachers shall not receive to exceed \$3,500 in any one school year.

The other changes relate to the matter of the training-school certificate.

In 1915 the basis of apportioning the State aid was changed from 10 months to 9 months. The schools now receive a sum equal to the amount spent for teachers' wages, limited to \$3,000 for schools having two teachers and \$4,000 for schools having three or more teachers. If schools are maintained more than 9 months, additional aid is granted. A special appropriation may also be secured under certain conditions in case a regular course in domestic science is adopted and a qualified teacher secured for the work.

In 1916 Racine and Juneau Counties voted to establish training schools. These begin their work in September, 1916, making the total number 30 for the State.

*County training schools for teachers.<sup>1</sup>*

Counties.	Location of school.	Established.	Principal.
Ashland.....	Mellen.....	1914	C. E. Hulten.
Barron.....	Rice Lake.....	1907	Grant E. Pratt.
Buffalo.....	Alma.....	1902	H. H. Liebenberg.
Columbia.....	Columbus.....	1908	S. M. Thomas.
Crawford.....	Gays Mills.....	1908	B. W. Weenink.
Door-Kewaunee.....	Algoma.....	1908	J. A. Eichinger.
Dunn.....	Menomonie.....	1899	G. L. Bowman.
Eau Claire.....	Eau Claire.....	1905	F. E. Jaastad.
Green.....	Monroe.....	1909	C. H. Diets.
Green Lake.....	Berlin.....	1909	C. D. Lamberton.
Langlade.....	Antigo.....	1906	W. E. Switzer.
Lincoln.....	Merrill.....	1907	E. W. McCrary.
Manitowoc.....	Manitowoc.....	1901	Fred Christiansen.
Marathon.....	Wausau.....	1899	Randall Johnson.
Marinette.....	Marinette.....	1905	A. M. Olson.
Oneida.....	Rhineland.....	1910	B. Mack Dresden.
Outagamie.....	South Kaukauna.....	1912	John E. Hala.
Polk.....	St. Croix Falls.....	1905	C. W. Monty.
Price.....	Phillips.....	1909	George R. Kay.
Richland.....	Richland Center.....	1902	L. C. Johnson.
Rock.....	Janesville.....	1911	Frank J. Lowth.
Rusk.....	Ladysmith.....	1907	R. H. Burns.
Sauk.....	Reedsburg.....	1906	W. E. Smith.
Taylor.....	Medford.....	1912	Jerome H. Wheelock.
Vernon.....	Viroqua.....	1907	A. E. Smith.
Waupaca.....	New London.....	1902	C. B. Stanley.
Waushara.....	Wautoma.....	1908	G. E. Dafee.
Wood.....	Grand Rapids.....	1903	M. H. Jackson.

<sup>1</sup> Two new schools were established in 1916: Juneau County, New Lisbon, C. W. McNowen, principal, and Racine County, Union Grove, A. J. Smith, principal.

*Enrollment by years.*

Counties.	1899-1900	1900-1901	1901-2	1902-3	1903-4	1904-5	1905-6	1906-7	1907-8	1908-9	1909-10	1910-11	1911-12	1912-13	1913-14
Barron.....									41	80	67	63	62	68	70
Buffalo.....				49	56	43	40	36	43	42	44	46	48	50	49
Columbia.....										33	32	260	47	62	51
Crawford.....										31	37	24	37	36	34
Door-Kewaunee.....										52	50	55	50	57	46
Dunn.....	57	58	80	81	74	100	95	80	89	88	92	86	86	86	77
Eau Claire.....							59	68	75	77	76	60	75	77	82
Green.....											49	56	63	58	42
Green Lake.....											62	104	62	100	64

<sup>1</sup> Including enrollment at summer session.

<sup>2</sup> Including enrollment at the summer session. In Green Lake County the regular term began early, and a considerable number enrolled for the first six weeks.

*Enrollment by years—Continued.*

Counties.	1899-1900	1900-1901	1901-2	1902-3	1903-4	1904-5	1905-6	1906-7	1907-8	1908-9	1909-10	1910-11	1911-12	1912-13	1913-14
Langlade.....								48	46	50	42	43	42	39	42
Lincoln.....								74	57	72	63	54	54	38	33
Manitowoc.....			48	49	50	50	51	52	56	52	52	54	56	52	45
Marathon.....	56	76	36	70	69	71	64	80	72	71	73	61	61	53	85
Marinette.....							52	60	65	70	59	50	62	63	62
Onesida.....												25	57	62	52
Outagamie.....														31	42
Polk.....							38	43	38	51	49	36	41	41	47
Price.....											45	41	44	42	40
Richland.....				60	58	56	56	50	67	59	66	85	68	52	63
Rock.....													28	36	30
Rusk.....									45	45	42	38	52	37	45
Sauk.....								60	53	72	56	47	37	48	43
Taylor.....														28	39
Vernon.....									54	66	55	53	62	69	56
Waupaca.....				19	38	38	41	43	48	53	55	66	56	41	45
Waushara.....										23	29	39	44	43	37
Wood.....					51	53	55	55	61	71	79	86	96	80	89
Total <sup>1</sup> .....	113	134	164	328	396	411	551	675	927	1,145	1,308	1,553	1,390	1,479	1,413

<sup>1</sup> Total enrollment during the year 1914-15 for the 28 schools was 1,518.*Financial data.*

County training schools.	Assessed valuation of county, 1914.	Total expenditures, 1913-14.	Salaries, 1913-14.		Per capita cost of instruction, 1913-14.	Teachers employed, 1913-14.	State apportionment, 1913.	County levy, 1913.	Number of nonresidents or tuition students, 1913-14.
			Principal.	Total to assistants.					
Barron.....	\$25,240,753	\$4,711	\$1,850	\$2,100	\$56.43	3	\$3,500	\$1,700	10
Buffalo.....	19,500,044	5,689	1,800	2,150	80.61	2	2,950	1,850	3
Columbia.....	48,912,947	7,211	2,000	3,000	98.04	4	3,500	2,500	6
Crawford.....	15,761,909	3,125	1,800	850	77.94	2	2,800	500	2
Door.....	19,017,330								
Kewaunee.....	21,809,802	12,248	1,800	2,400	91.30	3	3,500	5,550	3
Dunn.....	25,435,782	7,905	2,200	3,050	68.18	4	3,500	3,796	8
Eau Claire.....	29,944,308	5,141	1,900	2,200	50.00	3	3,500	2,500	30
Green.....	48,100,240	5,446	2,050	2,400	105.95	3	3,500	1,500	8
Green Lake.....	27,784,833	5,968	2,250	2,310	71.25	3	3,500	1,500	21
Langlade.....	19,762,551	2,339	1,700	1,300	71.43	2	3,050	1,500	2
Lincoln.....	18,767,309	5,821	2,000	2,100	124.24	3	3,500	2,500	1
Manitowoc.....	59,304,517	4,816	2,000	2,350	96.66	3	3,500	2,000	1
Marathon.....	54,279,255	6,151	2,000	2,700	67.32	3	3,500	3,000	0
Marinette.....	27,801,372	6,112	2,000	2,300	67.74	3	3,500	2,000	13
Onesida.....	13,669,089	4,073	1,800	900	51.92	2	3,500	1,800	1
Outagamie.....	58,796,161	5,262	1,700	1,700	80.95	2	3,500	2,451	10
Polk.....	22,682,006	5,199	1,600	1,100	67.45	2	3,500	2,970	2
Price.....	14,103,401	4,211	1,800	1,250	76.26	2	3,500	1,500	0
Richland.....	25,667,308	5,512	2,000	3,215	79.31	5	3,500	2,275	2
Rock.....	67,741,842	4,524	1,800	1,180	99.33	2	3,500	2,000	1
Rusk.....	12,286,284	4,993	1,800	1,750	78.88	2	3,500	1,500	4
Sauk.....	17,163,722	7,697	1,800	2,680	108.88	4	3,500	1,000	13
Taylor.....	14,751,631	5,117	1,700	1,300	76.92	2	3,500	1,800	2
Vernon.....	31,518,043	4,553	1,800	1,000	47.28	2	3,500	1,500	10
Waupaca.....	34,739,083	4,612	1,700	2,000	82.22	2	3,500	.....	6
Waushara.....	19,613,077	3,467	1,650	1,000	71.62	2	2,550	1,000	2
Wood.....	31,063,572	6,941	2,100	2,050	46.63	3	3,500	3,500	17
Total <sup>2</sup> .....	871,456,971	151,165	50,600	52,435	.....	77	87,970	67,712	168
Average.....	32,276,184	5,599	1,874	1,619	72.92	....	3,258	2,138	....

<sup>1</sup> Data for 1912-13.<sup>2</sup> The total expenditures for 1914-15 were \$158,113; salaries of principals, \$51,705; State apportionment, \$88,921; county levy, \$57,321.

## THE COUNTY TRAINING-SCHOOL LAW.

The law providing for the establishment of county training schools for teachers in rural schools reads as follows:

*How organized. Section 411—1.* The county board of any county within which a State normal school is not located is hereby authorized to appropriate money for the organization, equipment, and maintenance of a county training school for teachers of the common schools. (1903 c. 338.)

*Board for; appointments, vacancies, bond, organization. Section 411—2.* A board to be known as the county training school board is hereby created, who shall have charge and control of all matters pertaining to the organization, equipment, and maintenance of such school, except as otherwise provided by law. Said board shall consist of three members, one of whom shall be the county superintendent of schools of the county or district in which the school is located. The other members of the board shall be elected by the county board, for the term of three years from the date of their election. Vacancies existing in the board, from whatever cause, except in the case of the county superintendent, shall be filled by appointment made by the chairman of the county board, if the county board is not in session when such vacancy occurs. If the county board is in session, vacancies shall be filled by election by said board for the unexpired term. Appointments made by the chairman of the county board, as hereinbefore specified, shall be for the time to elapse until the next regular meeting of the county board. Each person appointed or created a member of the county training school board shall, within 10 days after the notice of such appointment, take and subscribe an oath to support the Constitution of the United States and the constitution of Wisconsin, and honestly, faithfully, and impartially to discharge his duties as a member of said board, to the best of his ability, which oath shall be filed in the office of the county clerk. He shall also, within the same time, file a bond in such sum as may be fixed by the county board, which bond shall be filed in the office of the county clerk. Within 15 days after the appointment of said board, the members thereof shall meet and organize by electing one of their number as president and one as treasurer; the county superintendent of schools shall be ex officio secretary of the said board. The said board shall prescribe the duties of the several officers, except as fixed by law.

*Moneys for; how paid. Section 411—3.* All moneys appropriated and expended under the provisions of this act shall be expended by the county training school board, and shall be paid by the county treasurer on orders issued by said board.

*Number that may be organized. Section 411—4.* The State superintendent shall give such information and assistance as may seem necessary in organizing and maintaining such training schools. He shall prescribe the course of study to be pursued; shall have the general supervision of all schools established under this section; shall from time to time inspect the same, make such recommendations relating to their management as he may deem necessary, and make such reports thereon as shall give full information concerning their number, character, and efficiency; provided, that he shall not place upon the said list more than 33 schools. (1913 c. 259.)

*Accredited list; report; State aid. Section 411—5.* 1. Any school established under the provisions of this act whose courses of study and the qualifications of whose teachers have been approved by the State superintendent may, upon application, be placed upon an approved list of county training schools for teachers. A school once entered upon such list may remain listed and be

entitled to State aid so long as the scope and character of its work are maintained in such manner as to meet the approval of the State superintendent; provided, that he shall not place upon said list more than 30 schools. On the 1st day of July in each year the secretary of each county training school board maintaining a school on the approved list shall report to the State superintendent setting forth the facts relating to the cost of maintaining the school, the character of the work done, the number and the names of teachers employed, and such other matters as may be required.

*Certificate; warrant.* 2. Upon the receipt of such report, if it shall appear that the school has been maintained in a satisfactory manner for a period of not less than nine months during the year closing on the 30th day of the preceding June, the said superintendent shall make a certificate to that effect and file it with the secretary of state. Upon receiving such certificate the secretary of state shall draw his warrant, payable to the treasurer of the county maintaining such school, or in case such school is maintained by two or more counties such warrant shall be payable to the treasurer of such school for an amount equal to the sum expended for the wages of duly approved and qualified teachers employed in the school for at least nine months during the school year, provided that a school employing two teachers shall not receive to exceed \$3,000, and a school employing three or more teachers shall not receive to exceed \$4,000 for said nine months. Any county training school for teachers which maintains its school for more than nine months during any school year shall receive for such additional time a sum of money from the State which shall be in the same proportion to the sum received from the State for nine months as the additional time for which the school is conducted over the nine months is to the nine months. Payments made under this section shall be charged to the appropriation provided in section 172—59.

3. Any school established under the provisions of sections 411—1 to 411—11, inclusive, that will adopt a course of study in domestic science and employ a qualified teacher approved by the State superintendent shall be entitled to receive, in addition to the State aid mentioned in subsection 2 of section 411—5, \$250 annually, to be paid in the same manner as other State aid is paid to schools established under sections 411—1 to 411—11, inclusive, of the statutes. (1915 c. 292, 448.)

*County training school certificates; value of.* Section 411—6. 1. Any person who shall complete in a satisfactory manner the course of study prescribed for any county training school, and who shall be of good moral character, shall receive a certificate signed by the principal of the school and by the members of the county training school board. Said certificate shall certify that the person named herein has satisfactorily completed the course of study prescribed for the county training school, and is of good moral character; it shall also contain a list of the standings secured by the person on the completion of each of the studies pursued in the school.

2. *Such \* \* \* certificates shall qualify the holder to teach in any common school in the county under the jurisdiction of the county superintendent of schools in which the county training school is located for a term of three years from the date of its issuance; provided, that in case the holder of the certificate shall not have had at least one year of successful experience he shall not be qualified to act as principal of a second-class State graded school, nor shall he be eligible to teach in any position for which a State certificate shall be required by law; provided, that in case the holder thereof has never taught, or can not furnish satisfactory evidence of having successfully taught for at least one school year (seven months) in the public schools of this State, said*

certificate shall be of full force and effect for one year only from its date of issue.

3. When satisfactory evidence of successful teaching for at least one year (seven months) upon said training school certificate shall be furnished to the county or district superintendent, said superintendent shall remove the limitation, whereupon the training school certificate shall have full force and effect for two additional years.

4. Be it further provided that in case the holder of a county teacher's training school certificate shall have completed a four-year high-school course, and shall have taught successfully for at least seven school months, said certificate shall, when countersigned by the county or district superintendent, legally qualify the holder to teach for a period of five years from the date when such certificate was granted, and shall also be a legal qualification to teach in any department of any State graded school, the principalship of a State graded school of the first class excepted.

\* \* \* 5. Any school superintendent or officer authorized to grant certificates to teachers in Wisconsin schools is hereby authorized, in his discretion, to accept standings obtained by the completion of studies in any county training school in the State, when duly certified by the principal of said school, in lieu of actual examination by said superintendent or examiner at any time within three years from the date of the certificate of completion of the course, by the person desiring to have such standings accepted. (1913, c. 418.)

*Section 411—6a.* No member of any county training school board shall be employed in the county training school for teachers, either as principal or as assistant teacher, during the term for which he was elected or appointed as a member of such county training school board, nor shall any person be employed as a teacher in such school who does not hold some form of a State license or certificate: *Provided*, That the provisions of this section shall not apply to any person now engaged as a teacher in a county training school, nor shall any person be employed as principal of such school who is not legally qualified for the position of principal of a free high school having a four years' course of study, nor as an assistant one who does not hold some form of State license or certificate. (1911 c. 349.)

*Joint training schools between counties. Section 411—7. 1.* The county boards of two or more adjoining counties may unite in establishing and maintaining a training school for teachers for the purposes and on the same general plan as provided for in sections 411—1 to 411—6, inclusive, of the statutes, and may appropriate money for its maintenance, and whenever two or more counties unite in establishing such a school, the county superintendents of the counties so uniting and two members in addition chosen from each such county, no member of any county board being eligible thereto shall constitute the joint county training school board. \* \* \* *The members of the board chosen by the county boards of supervisors shall choose one of the county superintendents of the counties uniting to maintain the school as secretary of the county training school board.* (1913 c. 105.)

2. If, at the time of establishing such school, the counties so uniting shall neglect to procure a site or to erect a school building therefor, such joint county training school board shall have power, subject to the approval of the State superintendent, to procure such site and to erect a suitable school building thereon. The joint county training school board shall have power, subject to the approval of the State superintendent, to borrow money for the purposes of this act from the trust funds of the State only, payable in not to exceed 10 years with the annual interest at the rate of not to exceed  $3\frac{1}{2}$  per cent, but the total amount of such loans shall not at any time exceed \$12,000. Loans for

site and building purposes shall be made payable in equal annual installments, and provisions for the payment of each such installment and accrued interest shall be made in the tax levy and apportionment mentioned in section 411—8 of the statutes. (1909 c. 98.)

*Apportionment of cost. Section 411—8.* Whenever two or more counties unite in establishing and maintaining such school, the county school board provided for in such cases shall determine the amount of money necessary for the maintenance and equipment of the school for the next succeeding year, and annually thereafter. They shall apportion the amount to be raised by taxation among the counties in proportion to the assessed valuation of the real and personal property in each county as last fixed by the State board of assessment, and shall report to the county clerk of each county on or before the first Monday of November in each year the amount of the apportionment so fixed, and such amount shall be levied in the county tax of each county for the ensuing year for the support of the school. Each county treasurer shall, immediately upon the collection thereof, pay over all moneys levied and collected pursuant to the provisions of this act to the treasurer of the joint county training-school board and file the latter's receipt therefor as a voucher. (1909, c. 98.)

*Treasurer's bond. Section 411—9.* Such joint county training school shall choose a member of said board as treasurer, provided that the person so chosen shall not be president or secretary of such board. Such treasurer shall, before assuming his office, give a bond to said board for the faithful discharge of the duties of his office. Such bond shall be in the sum of \$15,000 and shall have three or more sureties approved by said board; or said treasurer, in lieu of said bond so signed by said three sureties, may give surety bond to be approved by said board, and the cost of said surety bond may be paid for out of the funds of said joint training school in the discretion of the board. All moneys appropriated to and expended for any such joint county training school shall be expended by the board of such school and shall be paid by the treasurer of said school on orders drawn by the secretary and countersigned by the president.

*Who may be admitted. Section 411—10.* The board of any training school for teachers established under this law in a single county, or by two or more adjoining counties, shall admit to said school, whenever the facilities provided will warrant said board in so doing, any person prepared to enter such school, and who may reside in any county but not within the district where any training school has already been established. Persons so admitted shall be entitled to the same privileges and subject to the rules of the board adopted for the government of such school.

*Tuition of nonresidents, how collected. Section 411—11.* Whenever any person not residing in any training-school district shall become a student in any training school, the board of such school is hereby empowered to charge a tuition fee for such person to be fixed by a majority of the members of said board at a regular meeting thereof, provided that such tuition fee shall not exceed 75 cents per week for each nonresident pupil.

The county board of supervisors of the county of which such person is a bona fide resident is hereby authorized to and shall provide by tax upon the property of the county a sum sufficient to provide for the payment of the tuition on account of the residents of said county who have attended such teachers' training school, and the amounts so levied shall be collected when and as other taxes are collected, and shall be paid by the county treasurer of said county to the county treasurer of the county in which the training school enrolling such person is situated, and the amount so received by such treasurer shall be placed to the credit of the teachers' training-school district. (1909, c. 223.)

## THE COUNTY TRAINING-SCHOOL BUILDINGS.

The provision of buildings for county training schools is here given for the counties separately:

**Barron County.**—A building originally intended for a courthouse and later used as a high-school building was remodeled at a cost of \$3,250. If, at any time, the county shall fail to use the building for training-school purposes, the property will revert to the city of Rice Lake.

**Buffalo County.**—The city of Alma erected a building in 1902 and is giving its use free to the training school. The building belongs to the city.

**Columbia County.**—The county erected a building in 1910 at a cost of \$30,000.

**Crawford County.**—The training school is housed in the old public-school building, which is furnished free by the village of Gays Mills.

**Door-Kewaunee Counties.**—A site on which a building was located was secured for \$2,000. The building was remodeled at a cost of \$7,500 and belongs to the training school.

**Dunn County.**—The county erected a building in 1902, at a cost of \$25,000. This building is used jointly by the county training school and the county agricultural school.

**Eau Claire County.**—A building was erected in 1907 at a cost of \$18,000. It is used exclusively by the training school.

**Green County.**—The training school is housed in the upper rooms of the old high-school building. These rooms, together with heat and janitor service, are given free by the city of Monroe.

**Green Lake County.**—The training school pays \$600 rent to the city of Berlin for the entire upper floor in a new school building. This amount includes heat, light, and janitor service.

**Langlade County.**—The training school has the use of the upper rooms in the city library building. The rent paid is \$600 a year.

**Lincoln County.**—The old courthouse was remodeled at a cost of about \$4,400 and is occupied by the county training school.

**Manitowoc County.**—The training school occupies the upper rooms of the library building. A rental of \$600 is paid, which includes, light, heat, and janitor service.

**Marathon County.**—A building was erected by the county in 1902 at a cost of \$16,000. This building is used jointly by the county training school and the county agricultural school.

**Martinet County.**—A building was erected at a cost of \$25,000. It is used by the training school and also by the county agricultural school, which are both under the direction of one superintendent.

**Oneida County.**—The old courthouse was remodeled at a cost of \$2,000 and is used as quarters for the training school.

**Outagamie County.**—A building was remodeled and furnished free for the training school by the city of Kaukauna. In 1916 the county board voted to erect a new building. This will be ready for occupancy by January, 1917.

**Polk County.**—A building was erected by the county at a cost of \$7,000.

**Price County.**—Rooms, heat, and light are furnished free by the city of Phillips in one of the public school buildings.

**Richland County.**—A new building has been erected by the county at a cost of \$32,000.

**Rock County.**—Janesville furnishes rooms free in one of the ward buildings. A sum of \$650 is paid for heat, light, and janitor service.



*Rusk County.*—A new building was erected by the county in 1910-11, at a cost of \$15,000.

*Sauk County.*—A new building was erected by the county in 1910, at a cost of \$25,000.

*Taylor County.*—The city of Medford fixed up rooms for the training school in one of the ward buildings and gives the use of these rooms free, including heat.

*Vernon County.*—Rooms are rented in the high-school building. The rental paid is \$300 per year.

*Waupaca County.*—Free quarters are furnished by the city of New London in one of the ward buildings.

*Waushara County.*—A rental of \$150 per year is paid for rooms owned by a private individual. The rooms were remodeled at a cost of \$100.

*Wood County.*—A building was erected in 1907 at a cost of \$20,000. It is used jointly by the county training school and the county agricultural school.

## THE TEACHERS IN THE TRAINING SCHOOLS.

### THE PRINCIPALS.

The 27 principals are classified according to qualifications as follows:

Graduates from normal schools and also from some college or university----	5
College graduates-----	6
Normal-school graduates who have done some college work-----	4
Normal-school graduates-----	6
Holders of State certificates received through examination-----	6

The experience that the principals had in teaching when they entered upon their work in the county training schools varies from 5 years to 25 years, the average length of service being 17 years. Practically all of them have at some time taught in rural schools, the length of such teaching varying from 1 to 7 years. Nearly all of them have also had experience in State graded schools or in city grades. With two or three exceptions they have spent several years as teachers in high schools, and 19 have been principals of high schools and supervising principals of the grades. Three have had experience as city superintendents, and 11 as county superintendents. Five have held positions on the faculties of normal schools.

Practically all of the principals have been born and brought up in the country and have a direct knowledge of country conditions. They have been pupils in the country school, and this experience, together with their work as teachers in these schools, gives them a knowledge of actual conditions.

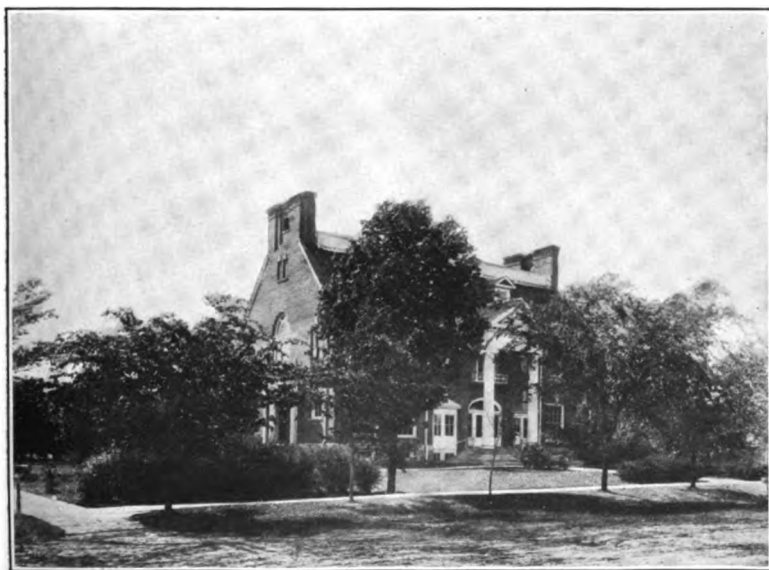
The salaries of the principals average \$1,874 a year.

### THE ASSISTANTS.

During the present year (1913-14) there are 50 assistants employed. These include the teachers who have charge of the model schools. In Richland County there are 4 assistants, in Columbia,



COUNTY TRAINING SCHOOL BUILDING, COLUMBUS, COLUMBIA COUNTY, WIS.



CITY LIBRARY BUILDING, ANTIGO, WIS.

The Langlade County Training School is conducted on the second floor.



Dunn, and Sauk Counties there are 3 assistants in each school. In 14 schools 2 assistants are employed, and in 9 schools the principal has 1 assistant.

The average salary paid first assistants is \$1,200 per year, and second assistants \$922.

According to qualifications the assistants are grouped as follows:

Graduates from normal schools and also from college.....	7
College graduates.....	4
Normal-school graduates who have had some college work.....	10
Normal-school graduates.....	24
Holders of State certificates received through examination.....	3

The first assistants average 11 years of teaching experience when entering upon their work in the county training schools and all the other assistants average 9 years. About half of the number have been brought up in the country, and at least two-thirds have taught in the country schools. Practically all have had experience in elementary-school work. Over one-third of the assistants have taught in high schools. Five have taught in normal schools and one has been a county superintendent.

Special effort has always been made to fill the positions of principals and assistants in the county training schools with persons of adequate education and training who have a sympathetic knowledge of country conditions. A college graduate is not necessarily qualified to take a position as teacher in one of these schools. To be able to do the work properly a person must have a knowledge of country life and must keep in touch with the movements that make for better country conditions. The training school must be able to take the conditions as they are and with the county superintendent plan a campaign that will build up the common schools of the county.

### THE COURSES OF STUDY.

The county training schools of Wisconsin do not follow a uniform course of study. A course is proposed by the local authorities and submitted to the State superintendent, by whom it is approved.

There are in general two courses. Those who are graduates of high schools or who have had sufficient preparation are usually able to complete the work in one year, and take what is known as the one-year course. Others who have not had sufficient preparation spend two years at the school. In some instances the students are unable to finish the work in two years. In some of the counties practically all of the students finish the courses in the time assigned, while in other counties where the preparation has been poorer more students fail to finish within the usual time.

The courses used in two of the schools are reproduced here to show the general arrangement of the subjects taken up.

## BARRON COUNTY.

## TWO-YEAR COURSE.

## FIRST YEAR.

<i>First quarter</i>	<i>Second quarter</i>	<i>Third quarter</i>	<i>Fourth quarter</i>
English	English	English	English
Library training	Geography	Geography	Geography
Physiology	Drawing	Agriculture	Agriculture
Elementary science	Physical geography	Physical geography	Reading methods

## SECOND YEAR.

English	English	English literature	American literature
History of Wisconsin and of United States	History of United States	History of United States	Civics
Methods	Methods	Management and psychology	Country life
Agriculture	Arithmetic	Arithmetic	Arithmetic
Practice	Practice	Practice	Practice

## ONE-YEAR COURSE.

<i>First quarter</i>	<i>Second quarter</i>	<i>Third quarter</i>	<i>Fourth quarter</i>
English	English	English literature	American literature
Library training	Geography	Geography	Geography
Agriculture	Arithmetic	Arithmetic	Arithmetic
Physiology	Drawing	Physical geography	Country life
Methods	Methods	Psychology	Management
Practice	Practice	Practice	Practice

Twenty weeks of successful practice teaching are required of each student before graduation.

The two years' course in English includes grammar, composition, orthoëpy, simple word analysis, the reading of English classics, and American literature.

## SAUK COUNTY.

## TWO-YEAR COURSE.

## FIRST YEAR.

<i>First quarter</i>	<i>Second quarter</i>	<i>Third quarter</i>	<i>Fourth quarter</i>
Spelling	Spelling	Arithmetic	Arithmetic
Reading	Reading	Language	Composition
Plays and games (7)	Physiology	Library reading	Library reading
Drawing (3)	Writing	Physiology (3)	Drawing (7)
Agriculture	Physical geography	Construction (7)	Plays and games (3)
Physical geography		Geography	Geography
			Agriculture

## SECOND YEAR.

Professional language	Theory	U. S. history	Sewing
Professional reading and orthoëpy	Reading	American literature	U. S. history
Arithmetic	Professional arithmetic	Grammar	Civics
Cataloguing	Management and law	Observation and practice	Rural economics
Observation and practice	Observation and practice	Practice teachers' conference	Observation and practice
	Practice teachers' conference		Practice teachers' conference

## ONE-YEAR COURSE.

FOR HIGH-SCHOOL GRADUATES AND THOSE HAVING FINISHED THE TENTH GRADE.

<i>First quarter</i>	<i>Second quarter</i>	<i>Third quarter</i>	<i>Fourth quarter</i>
Spelling	Reading	Physiology (3)	Civics
Professional language	Theory	Construction (7)	Rural economics
Professional reading and orthoëpy	Professional arithmetic	Grammar	Agriculture
Agriculture	Management and law	Geography	Library reading
Arithmetic	Writing	U. S. history	U. S. history
Cataloguing	Observation and practice	American literature	Drawing (7)
Plays and games (7)		Observation and practice	Plays and games (3)
Drawing (3)		Practice teachers' conference	Observation and practice
			Practice teachers' conference

Courses may have to be changed slightly to meet needs of model department. Library reading, music, rhetorical, and physical exercises throughout the year.

Cooking one day each week during the second year.

It will be seen from these courses that most of the time is given to the study of the subjects taught in the common schools. These subjects are studied both from the academic and the professional standpoints. Country school conditions are kept constantly in mind. The State common-school manual is used in connection with the study of most of the common-school subjects.

A brief study of the basic principles of education is made, constant attention being given to the application of these principles in the teaching work of the schoolroom. School management, school law, and the management and use of the school library are studied in all the schools; and here again country conditions are always kept in mind, especially the conditions in the county in which the school is located.

Every school gives at least 20 weeks to the study of agriculture and some give as much as a year. Nature study is emphasized throughout the course.

Observation and practice teaching are carried on under close supervision. Daily lesson plans are made by the students during their

practice work, and daily conferences are held in which criticisms and suggestions are made. All the students have practice in the teaching of primary reading, and as a result great progress has been made in the teaching of this subject. As much additional practice as possible is given in the teaching of other subjects. Seven of the training schools have actual practice departments in connection with their institutions, while the remainder secure practice work in the public schools of the city or village in which they are located. Some observation work is also done in the rural schools.

Many of the schools give domestic science and manual training. The chief purpose of this work is to show how some of the simple things may be introduced into the country schools to make the instruction more interesting and profitable. This type of training also has a tendency to develop in the students a proper attitude toward manual labor.

Algebra has been dropped from the courses in most of the schools and more time is given to the study of subjects which the students will have to teach.

Practically all the schools have now introduced in some form the study of rural sociology and rural economics. Special effort is made to make the work as concrete as possible.

The Door-Kewaunee training school has added a one-year preparatory course which students coming directly from the elementary school take before entering upon the regular two-year course. The work of this preparatory year is similar to that of the first year of a high school, so that, if the student concludes not to take up teaching, he may continue his school work in a regular high school. The work done in the preparatory year, however, is taken up with the professional idea in mind.

In all the schools the students maintain literary societies with the special purpose of securing training in parliamentary practice and management of public meetings.

### THE STUDENTS.

In December, 1913, there were 1,227 students enrolled in the training schools of the State. The ages of these students are given in the tabulation on page 23.

On page 22 the academic preparation of the students is given in tabulated form. Of the total number attending, 11 per cent were high-school graduates when they entered. The preparation of the others was as follows:

	Per cent.
Having had three years beyond the elementary school.....	24
Having had two years beyond the elementary school.....	10
Having had one year beyond the elementary school.....	14½
Eighth-grade graduates.....	62

Of those who had only an elementary education, 42½ per cent were from a one-room country school; 12½ per cent from a State graded school, and 7 per cent graduates of the eighth grade in cities.

On page 22 an attempt is made to show the life experience of the training-school students. It is seen from the summary that, of all the students enrolled in December, about 77 per cent were country bred and 23 per cent were from the city. In many instances, of course, the cities represented are small. Data received from the training schools show that practically all the students, both country bred and city bred, are accustomed to work in their homes and to assume responsibilities.

In considering students desirable for teachers' training schools of any kind, it should be kept constantly in mind that the ability to do academic work is but a part of the necessary preparation. It is felt that a person who has had considerable academic preparation, but who has never been accustomed to assume responsibilities in life, is not likely to become a strong leader in any community, and it is, therefore, considered that practically all the students who are enrolled in the county-training schools are young men and women who are accustomed to work and who have often had to shoulder responsibilities in their homes.

The following summary of the students in the Waupaca County training school was made by Principal C. B. Stanley:

#### SOME COUNTY NORMAL STATISTICS.

The following are some interesting facts concerning the home life and the preliminary preparation of the students of the County Normal which may prove as interesting to others as they have to the compiler:

Number of students reporting, 41.	Have made clothing, 34; dresses, 17.
Number of families represented, 40.	Milked cows, 31; one girl for 9 years;
Average age of students, 17 years.	one milked from 4 to 10 cows for
Lived on farm, all life, 28; most of	5 years.
life, 7; not at all, 5.	Care of dairy utensils, 29.
Parents dead, mother, 5; father, 5.	Out-door farm work, 35.
Average number of children in families, 5½.	Repairing, 24; 14 put in windowpanes.
Oldest in family, 9; next to oldest, 12; youngest, 8.	Responsible for family darning, 11;
Having had responsibility for younger children, 23; none, 18.	for family mending, 12.
Kept house more than one day, 31.	Care of garden, 36.
Made bread, 30.	Raising garden flowers, 31; house plants, 31.
Experience in cooking, general, 26; some, 15.	Care of flock of poultry, 24.
Charge of grocery marketing, 24.	Fried out lard, 17; made head cheese,
Experience in purchasing clothing, 38.	5; made soft soap, 3.
	Can spin, 4; knit, 14; crochet, 15.
	Had experience in nursing, 17.
	Had charge in case of accident, 8.



Have met dangerous situations, 13.  
 Taught Sunday-school class, 15.  
 Conducted sociables, 25.  
 Have taken special lessons, 19.  
 Taught Sunday-school class, 15.  
 Deposited money in bank, 13.  
 Worked away from home for money, 24.

Marketed farm produce, 14.  
 Had charge of housecleaning, 16.  
 Done family washing, 32; family iron-  
 ing, 36.  
 Can harness and hitch a single  
 horse, 31.

## WAUPACA COUNTY NORMAL.

Attention may be called to the fact that the experience of most of the students with reference to travel is rather limited. Some, it is true, have had the opportunity of seeing various localities and conditions, but most of them have been restricted to their home localities. Many of the training schools have had their classes visit mills of various kinds, machine shops, quarries, and the like. In this way the student's horizon is extended, and he gets a broader view of life.

*Academic preparation and life experience of students who entered the training schools in 1913.*

County training schools.	Enrollment, December, 1913.		Academic preparation.							Life experience.							Students who work their way through school entirely or partly.
			Number who were high-school graduates.	Had 3 years of advanced work.	Had 2 years of advanced work.	Had 1 year of advanced work.	Eighth-grade graduate only.	From 1-room country school.	From State graded school.	From eighth grade in city.	Country bred.	Having had responsibilities.	Having had no responsibilities.	City bred.	Having had responsibilities.	Having had no responsibilities.	
Barron.....	62	4	3	10	10	35	20	8	7	60	56	4	2	2	0	6	36
Buffalo.....	46	5	0	2	3	36	26	7	3	40	38	2	6	4	2	1	11
Columbia.....	49	8	3	5	9	24	17	5	2	40	40	0	9	8	1	5	16
Crawford.....	33	0	2	6	1	24	19	5	0	33	33	0	0	0	0	5	6
Door-Kewaunee.....	42	8	0	1	14	19	11	5	3	28	20	8	14	9	5	4	3
Dunn.....	71	1	0	0	13	57	42	12	3	66	64	2	5	4	1	6	39
Eau Claire.....	62	6	0	9	12	35	29	5	1	46	46	0	16	16	0	5	33
Green.....	40	6	0	4	0	30	4	21	5	26	26	0	14	6	8	8	8
Green Lake.....	52	5	0	3	7	37	24	3	10	32	25	7	20	12	8	6	14
Langlade.....	38	8	0	0	5	25	13	4	8	16	14	2	22	20	2	7	11
Lincoln.....	23	15	1	0	1	6	6	0	0	10	10	0	13	11	2	7	0
Manitowoc.....	40	2	3	4	4	27	16	10	1	36	32	4	4	4	0	5	10
Marathon.....	82	5	2	5	16	54	32	16	6								
Marquette.....	51	16	0	6	9	20	15	5	0	30	30	0	21	21	0	6	3
Oneida.....	31	5	0	5	2	19	11	5	3	26	18	8	5	2	3	6	10
Outagamie.....	39	5	2	6	5	21	10	4	7	20	19	1	9	5	4	7	10
Polk.....																	
Price.....	35	1	0	4	6	24	14	10	0	32	30	2	3	2	1	5	13
Richland.....	66	14	2	8	8	34	28	2	4	48	48	0	18	18	0	4	4
Rock.....	27	3	1	2	3	18	11	3	4	20	16	4	7	5	2	6	5
Rusk.....	43	2	3	6	11	21	12	5	4	34	30	4	9	7	2	4	30
Sauk.....	43	4	2	4	10	23	19	3	1	28	20	8	15	11	4	5	6
Taylor.....	34	2	1	8	4	23	17	4	2	25	25	0	13	8	5	6	8
Vernon.....	53	2	0	11	7	33	22	3	8	51	43	8	2	2	0	6	30
Waupaca.....	41	4	1	6	6	24	21	3	0	36	(1)	(1)	5	(1)	(1)	5	1
Waushara.....	36	1	0	0	0	35	25	7	3	36	36	0	0	0	0	6	6
Wood.....	84	2	4	8	16	54	54	0	0	70	65	5	14	14	0	6	48
Total.....	1,227	134	30	123	182	758	519	155	85	889	784	69	256	201	50	54	376

<sup>1</sup> No information.

## Ages of students enrolled December, 1913.

County training schools.	Enrollment.					Juniors—First year.							Seniors—Second year.							
	Total.	Juniors.		Seniors.		Under 16 years.	16 years.	17 years.	18 years.	19 years.	20 years.	21 years or over.	Under 16 years.	16 years.	17 years.	18 years.	19 years.	20 years.	21 years or over.	
		Male.	Female.	Male.	Female.															
Barron.....	62	1	28	2	31	3	15	4												
Buffalo.....	46	4	19	3	20	2	13	8	0	0	0	0	2	4	15	4	5	1	2	
Columbia.....	46	0	11	0	35	2	5	5	0	2	2	0	0	2	10	13	3	4	4	
Crawford.....	33	1	17	2	13	11	4	3	0	0	0	0	0	0	4	3	0	0	0	
Door-Kewaunee.....	42	11	12	6	13	3	8	6	4	1	0	1	0	0	2	3	2	1	1	
Dunn.....	71	2	35	1	33	13	12	8	0	1	1	1	5	6	15	8	6	0	0	
Eau Claire.....	62	2	27	1	32	0	13	9	0	1	0	1	0	0	11	11	4	4	4	
Green.....	40	0	22	0	18	3	3	3	1	7	0	0	0	0	1	3	3	0	3	
Green Lake.....	52	0	22	2	22	4	13	9	1	1	0	1	0	0	4	4	4	4	4	
Langlade.....	38	0	10	0	28	0	7	2	1	0	0	0	0	2	9	9	2	2	1	
Lincoln.....	23	0	0	0	23	0	0	0	0	0	0	0	1	0	0	11	11	0	0	
Manitowoc.....	40	0	17	2	13	0	14	8	0	1	1	0	0	0	0	10	8	2	1	
Marathon.....	82	0	37	5	35	11	20	8	3	0	0	0	0	2	17	8	3	2	2	
Marinette.....	51	2	17	2	30	0	11	7	0	0	1	0	0	0	10	8	3	1	1	
Oneida.....	31	0	10	1	20	3	5	2	0	0	0	0	0	0	7	9	2	2	2	
Outagamie.....	39	0	18	2	21	8	4	2	0	0	0	2	1	5	6	4	4	0	3	
Polk.....	35	4	14	0	17	5	11	2	0	0	0	0	0	8	9	3	2	1	1	
Price.....	66	7	23	7	29	4	12	10	2	1	0	0	0	0	8	10	6	2	5	
Richland.....	46	0	12	0	15	3	0	6	2	1	0	0	0	0	0	6	3	1	0	
Rock.....	27	0	12	0	15	3	0	6	2	1	0	0	0	0	0	3	3	3	1	
Rusk.....	43	7	11	2	23	6	0	7	4	1	0	0	1	0	3	12	3	5	0	
Sauk.....	43	1	22	1	19	6	7	7	2	0	0	1	1	2	5	4	5	1	1	
Taylor.....	38	0	12	1	25	7	3	2	0	0	0	0	3	7	6	8	1	1	0	
Vernon.....	53	2	29	4	18	6	9	10	5	0	0	1	0	2	7	5	4	0	0	
Waupaca.....	41	1	20	1	19	3	6	9	3	0	0	0	0	5	10	3	1	0	1	
Waushara.....	36	0	21	1	14	10	9	1	0	1	0	0	0	4	4	2	3	0	2	
Wood.....	84	6	41	2	35	8	11	16	8	4	0	0	0	9	7	7	7	4	3	
Total.....	1,227	73	502	48	604	119	215	149	58	24	3	7	14	81	196	180	102	55	44	

<sup>1</sup> No information.

## County training-school graduates.

County training schools.	Total number.	Men.	Women.	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914
Barron.....	147	1	146	.....	.....	.....	.....	.....	.....	.....	.....	9	21	20	18	30	19	30
Buffalo.....	250	46	204	.....	.....	.....	23	34	20	26	12	17	18	17	21	19	24	19
Columbia.....	119	8	111	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	22	21	18	26	28
Crawford.....	81	6	75	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	19	9	7	22	14
Door-Kewaunee.....	119	26	93	.....	.....	.....	.....	.....	.....	.....	.....	.....	16	25	21	23	15	19
Dunn.....	467	53	414	18	26	33	34	37	24	47	33	33	30	32	31	25	36	28
Eau Claire.....	207	9	198	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Green.....	124	2	122	.....	.....	.....	.....	.....	.....	12	28	22	28	20	23	16	32	26
Green Lake.....	95	11	84	.....	.....	.....	.....	.....	.....	.....	.....	.....	16	34	23	32	19	.....
Langlade.....	127	0	127	.....	.....	.....	.....	.....	.....	.....	11	15	14	18	17	19	15	18
Lincoln.....	93	0	93	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	10	8	15	22	15
Manitowoc.....	302	92	210	.....	32	25	21	21	23	20	23	24	19	27	23	29	15	.....
Marathon.....	421	39	382	23	16	27	32	26	25	26	30	21	32	29	30	24	27	43
Marinette.....	217	18	199	.....	.....	.....	.....	.....	.....	11	36	24	24	25	23	17	26	31
Oneida.....	42	0	42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	12	13	11	.....
Outagamie.....	26	1	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	18	.....
Polk.....	144	9	135	.....	.....	.....	.....	.....	.....	6	11	13	26	21	18	17	14	18
Price.....	50	0	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	11	10	10	14
Richland.....	337	49	288	.....	.....	.....	19	37	23	31	25	24	31	23	39	35	19	31
Rock.....	44	0	44	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14	17	13
Rusk.....	131	8	123	.....	.....	.....	.....	.....	.....	.....	.....	.....	16	19	18	15	26	13
Sauk.....	125	2	123	.....	.....	.....	.....	.....	.....	.....	21	10	12	15	18	13	17	19
Taylor.....	22	1	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	20
Vernon.....	171	15	156	.....	.....	.....	.....	.....	.....	.....	.....	17	26	20	28	22	33	25
Waupaca.....	251	18	233	.....	.....	.....	6	26	23	24	19	17	22	23	26	27	23	15
Waushara.....	88	2	86	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19	11	20	23	15
Wood.....	208	18	288	.....	.....	.....	.....	22	25	25	18	25	29	31	37	37	28	29
Total <sup>1</sup> .....	4,506	434	4,072	41	42	92	139	203	161	231	264	298	396	457	521	520	559	582

<sup>1</sup> In 1915 there were 638 graduates, making the total number 5,144.

## THE GRADUATES.

The graduates of the county training schools are listed in the table given on page 23.

The table on page 26 gives the number of the graduates who were in the teaching work during the year 1913-14. These teachers are further classified in the same table so as to show the number who are teaching in the rural schools and graded positions of their own counties, those who are teaching in rural schools and graded positions in other portions of the State, and, finally, those who are teaching in other States. Of the total number that were graduated previous to 1913-14 (3,924), there were 2,013, or about 51 per cent, teaching in 1913-14.

Questionnaires were sent to the county superintendents in whose counties the training schools are located, asking them to give their estimate concerning the work done by the graduates. Four groups were suggested, namely: Excellent, good, fair, and poor. The grading done by the county superintendents is also given on page 26. It will be seen that of the total number teaching in these counties the groups are as follows:

Of the total number whose work was reported upon (1,440)——

312, or 21½ per cent, are rated as excellent;

642, or 45 per cent, are rated as good;

311, or 21½ per cent, are rated as fair;

111, or 7½ per cent, are rated as poor; and

64, or 4½ per cent, are unclassified.

It should be understood that the rating will naturally vary in different counties. In some of the counties the great majority of the teachers had no special training for their work before the establishment of the training school. The work done by the training-school graduates in such counties was so far superior to that done by the ordinary beginner that in most cases it would be rated as excellent. In other counties, where the schools have been established for some time, and where a large number of the teachers have had special training, the county superintendent naturally applies a higher standard, and a smaller per cent would be rated as excellent. In some instances, where the rating was especially high, letters were written to the county superintendents calling their attention to the matter, but in all cases answers came back stating that the work done by the training-school graduates is far superior to the work to which they have been accustomed.

The county superintendents were asked to specify wherein lies the strength of the training-school graduates and also to set forth their weaknesses. Almost universally the reply has been that the training-school graduates "know what to do." Their preparation

has led them to consider the conditions under which work in the country school must be done, and their planning in the training school has had continually in mind the country-school conditions. Consequently, when they enter the school they have definite ideas in regard to procedure. They know what is to be taught, the classes that are to be organized, the equipment with which they have to work, etc. They "get down to business" at once, whereas the teacher who has had no special training often wastes a great deal of time in getting ready.

Many of the county superintendents also mentioned the enthusiasm with which the training-school graduates take up their work. They have been looking forward to the schoolroom work during their training-school career and many of them have developed unusual interest. Frequent references are made to the loyalty of the training-school graduates to the profession. As a rule they are in regular attendance at teachers' meetings and institutes, and take part in discussions to a much greater extent than the ordinary beginner does. It should be understood, of course, that the enthusiasm with which the graduates take up the work depends greatly upon the training school faculty and the county superintendent.

In this connection mention should be made of some of the weaknesses which have been found in training-school graduates. The one most commonly complained of is lack of sufficient scholarship. This is not surprising when it is remembered that many who have entered the training schools have been poorly prepared in fundamentals. It should be noticed also that this poor preparation is found not only in pupils who enter directly from the country schools, but also in those who have had more advanced work. There are even some high-school graduates who, though they have spent four years in work beyond the elementary school, have done very little of the work that is required to be taught in the elementary school. In many cases they have had very little of the common branches and much of what they have had in the other branches has been "above their heads."

The result is that frequently these students come into the training school very poorly prepared to enter with zeal upon the professional work. Often it is found necessary to give them much work in the common branches. Of late, however, there has been a tendency to emphasize the common branches more in the regular high-school course, and the result is that high-school graduates are becoming better prepared in the fundamental branches. Instead of spending a few weeks in so-called "reviews," the high schools are now beginning to give half years, and years, to such subjects as arithmetic, geography, grammar, civil government, and hygiene.

In a few instances the county superintendents mentioned that the training-school graduates do not enter the work in the proper spirit. It is true of all institutions preparing teachers that some of the graduates are bound to go out with the feeling that "they know it all," and undoubtedly some graduates of the training schools are numbered among these unfortunates.

One criticism that is occasionally made is that the graduates do not adapt themselves to the communities in which they teach. This is true of a comparatively small number. It has been pointed out previously that most of these students are country bred and are therefore accustomed to country life. Occasionally, however, a student develops a snobbish attitude when he gets away from home surroundings and continues it when he gets back. As a rule the atmosphere of the training school has a tendency to correct such notions.

*The graduates who were teaching in 1913-14.*

County training schools.	Total number of graduates previous to year 1913-14.	Number of these teaching during year 1913-14.	Number teaching in—					Number whose work was reported on.	Number whose work according to county superintendent is—					Number of graduates from other county training schools.	Number of rural schools in county.
			Rural schools in home county.	Graded positions in home county.	Rural schools in other counties.	Graded positions in other counties.	Other States.		Excellent.	Good.	Fair.	Poor.	Not classified.		
Barron.....	117	102	65	9	20	...	8	65	12	44	7	2	...	0	130
Buffalo.....	231	114	55	18	10	11	20	75	8	40	22	5	...	0	81
Columbia.....	91	70	47	10	9	2	2	60	25	29	4	2	...	0	130
Crawford.....	67	36	24	3	6	1	2	24	0	17	6	1	...	0	83
Door-Kewaunee.....	100	71	40	15	5	3	8	55	11	29	13	2	...	7	106
Dunn.....	439	141	87	10	19	5	20	100	22	47	22	9	...	5	123
Eau Claire.....	181	111	37	14	36	19	5	44	22	16	4	2	...	1	77
Green.....	105	71	40	6	18	6	1	46	...	...	...	...	46	...	120
Green Lake.....	78	50	20	3	13	7	7	24	3	15	5	1	...	1	73
Langlade.....	109	79	54	12	5	3	5	67	8	32	25	2	...	1	65
Lincoln.....	72	60	42	5	2	8	3	43	22	8	13	0	...	1	66
Manitowoc.....	287	115	81	18	2	7	7	99	21	46	27	5	...	2	96
Marathon.....	378	139	102	16	10	6	5	130	20	38	52	22	...	2	186
Marinette.....	186	103	45	27	8	14	9	57	19	29	18	1	...	0	82
Oneida.....	31	26	18	1	3	0	4	18	12	10	2	2	...	26	51
Outagamie.....	8	8	6	0	0	1	1	26	12	10	2	2	...	1	117
Polk.....	126	69	56	13	(1)	(1)	(1)	69	13	34	18	4	...	4	100
Price.....	36	28	23	3	1	1	0	27	11	9	7	2	...	4	76
Richland.....	306	77	67	10	(1)	(1)	(1)	67	15	42	7	3	...	15	115
Rock.....	31	27	25	1	1	0	0	33	0	27	6	0	...	2	138
Rusk.....	107	45	42	3	(1)	(1)	(1)	39	12	13	10	4	...	2	66
Sauk.....	106	62	41	6	10	2	3	44	9	21	10	0	...	3	147
Taylor.....	2	2	1	1	0	0	0	9	2	3	4	0	...	3	141
Vernon.....	146	76	35	9	2	1	29	44	8	10	10	16	...	2	122
Waupaca.....	236	132	46	11	41	18	16	46	16	13	9	9	...	1	96
Waushara.....	73	57	40	9	6	0	2	51	19	18	8	6	...	2	96
Wood.....	277	142	68	8	32	5	29	68	10	51	3	4	...	0	96
Total.....	3,924	2,013	1,207	241	259	120	186	1,440	312	642	311	111	64	76	2,797

<sup>1</sup> Exact number not known.

In the following table are given the number of training-school graduates who have attended higher institutions since completing the training-school course. In studying this table a person should

keep in mind that some of the training schools are comparatively new, and for that reason the number of graduates who have attended higher institutions is small.

*Number of training-school graduates who attended higher institutions—Number who finished such institutions.*

Training schools.	Attended higher institutions.	Finished higher institutions.	Training schools.	Attended higher institutions.	Finished higher institutions.
Barron.....	(1)	(1)	Outagamie.....	0	0
Buffalo.....	45	30	Polk.....	(1)	(1)
Columbia.....	7	0	Price.....	0	0
Crawford.....	10	0	Richland.....	100	92
Door-Kewaunee.....	4	2	Rock.....	0	0
Dunn.....	30+	25+	Rusk.....	21	0
Eau Claire.....	23	8	Sank.....	1	1
Green.....	6	2	Taylor.....	0	0
Green Lake.....	11	4	Vernon.....	5	1
Langlade.....	(1)	(1)	Waupaca.....	33	9
Lincoln.....	6	6	Waushara.....	2	0
Manitowoc.....	71	40	Wood.....	78	7
Marathon.....	49	19			
Marinette.....	21	10			
Oneida.....	3	0	Total.....	526	256

<sup>1</sup> Data not available.

#### COMMENTS ON THE WORK OF THE TRAINING SCHOOL GRADUATES BY THE COUNTY SUPERINTENDENTS.

The county superintendents of the counties in which the county training schools are located were asked to state the strength and the weaknesses of the training-school graduates as they observed them in their regular school work. The following responses were received:

1. As a rule training-school graduates are strong in initiative, resourcefulness, methods, orderliness, and neatness of school rooms. \* \* \* Some of them are weak academically in upper form work and also in methods.

2. The greatest strength of the training-school graduates is in their preparation for their work in the graded and rural schools, their understanding of school problems and professional spirit. They know what to do and how to do it. \* \* \* Some lack maturity.

3. The greatest strength of the training-school graduate is the acquired enthusiasm for the work and the knowledge of means and of ends regarding country school work. Most of them look forward to the beginning of school with pleasant anticipations. \* \* \* One of the weaknesses is to underestimate the importance of thoroughness in upper form work.

4. They understand rural life better than others foreign to the country and are better liked in their communities as a result. This, of course, leads to many advantages. \* \* \* Beginners show uncertainty; sometimes act as if imitating. There is a lack of or insufficient academic training.

5. They do better work in reading and make better assignments.

6. Strong in resourcefulness and the ability to meet the unexpected. \* \* \* Some neglect to live up to their training.

7. They are strong in organization, in planning their work for each day, in presentation, and in primary reading. \* \* \* Some of them are weak in knowledge of subject matter.

8. They appreciate the responsibility resting on them and make daily preparation for their work. \* \* \* Some show weakness in government. Some of them are of immature judgment.

9. They are workers. They have ability to organize and lead. They show professional spirit. They get away from the mere book teaching and present practical needs. \* \* \* In some cases knowledge of subject matter is limited.

10. They take great interest in school and community. More power in drill work. Strong in reading and primary work. \* \* \* Some lack maturity. Some, possibly, have too much confidence in themselves.

11. They know what to do and how things should be done. In general they are more professional in their duty toward the work of teaching. In attending teachers' meetings the training-school graduate is far ahead of the old-type teacher.

12. They are strong in methods and especially in primary and middle-form work. They have good ideas regarding special programs, etc. They cooperate with the county superintendent and training school. \* \* \* Some show a weakness in discipline and also in their ability to mingle properly in the social life in the community.

13. They know how to go about work, plan programs, prepare lessons, and make assignments, and hence do not waste time. \* \* \* There is a lack of scholarship on the part of those who are not high-school graduates.

14. They are strong in subject matter, habits of application, and general good teaching. They know how to plan their work and organize the school. They have a foundation so that they are able to receive constructive criticism from the superintendent.

15. They are strong in methods of presenting work when compared with untrained teachers. They are strong also in "mixing" with community. \* \* \* Weakness in teaching upper grades. Graduates not mature. The weaknesses are lack of maturity, confidence, and in many cases academic qualifications.

16. They are strong in methods of handling class work and also in making assignments. \* \* \* Some of them get the notion that their preparation is complete. They do not know well enough the subject to teach. They are in many cases too immature.

17. They are strong in preparing work, assigning lessons, and in methods of instruction. \* \* \* Many are too young and some deficient in knowledge. They find the work more difficult than they anticipate.

18. Most of them have interest in country life. Their work is better organized. They are better prepared for busy work and do more social center work. \* \* \* Many lack in experience, education, and training previous to time they start training schools.

19. Majority anxious to make success. Many take active interest in civic society matters. \* \* \* Many immature girls, weak in scholarship and lack of sense of responsibility.

20. They organize the school with less delay. They have a supply of seat work and are prepared with drills and devices that have been provided at the training school. They have a better attitude toward the country, its social and economic problems. There is a disposition to find out, write letters, ask questions, and use references. \* \* \* Some are weak in discipline and in the teaching of arithmetic and spelling.

21. They are strong in teaching language.

22. They give the impression that they have something definite planned. \* \* \* They have a tendency to overdo the busy work.

23. They are strong in discipline, cooperation, and desire to do their very best; also in instruction and assignments. \* \* \* There is a lack of academic preparation before entering training schools.

#### WORK DONE BY SOME OF THE GRADUATES OF TRAINING SCHOOLS.

Many instances could be given where graduates of training schools have brought new life into the work of the country schools and also

new life into country communities. The following accounts are given not merely to tell what some of the graduates have done, but as suggestive of what may be done by all teachers who are going into country school work. Institutions that train young people for work in country communities would do well to give them information regarding what has really been accomplished in districts of the home county.

Miss P. taught at ———. She was imbued with the spirit of community service. She called in the physician from the neighboring village and asked him to come and speak to her people on "Tuberculosis." He had been principal of one of the high schools of the State and readily responded. The interest which his address aroused led the people to desire regular gatherings of that kind. The teacher secured the organization of a society which has maintained monthly meetings for the past three years. Miss P. left the district, but her influence is still felt.

Miss W. was the teacher in the ——— school. She had had trouble with Ed, and he left school on Friday evening vowing never to return. Miss W. went to her home for the week end and was haunted by a sense of failure. She determined that she would not allow Ed to leave school. On her return to her district on Sunday she went immediately to Ed's home, thrashed out the entire trouble with him, got his promise to return to school, and went happily to her repose. On Monday Ed came back to school and finished the common-school course that spring, went on to high school, and finished the course there with credit to himself and his teachers. He is now one of the most progressive young farmers in ——— County.

Miss B. taught at ——— three years. She was no common teacher, but was a real spirit of progress in the community. She went after the board, after the boys, after their parents until she secured for her school ground the best equipment of play apparatus in the county. She organized a Sunday school there and taught in it herself. She really revolutionized the attitude of the people in that district.

Miss H. finished the County Normal in 1910. She secured a school in the town of ———. Here, somewhat in the backwoods, she went to work. She organized the women and girls into a sewing circle. She secured a Babcock milk tester and got all her pupils and many of the farmers interested in the testing of milk. She interested the farmers in tested seed corn, so that every farmer in her district planted tested seeds. She secured through her sewing circle the most complete equipment of almost any school in the county. She is still there (1914). They are paying her more than \$100 a year better salary than when she began work and will not let her go.

One of the training school principals writes the following in reply to the question regarding the work done by the graduates of his school:

As to the instances where communities have been aroused or benefited because of the work done by our graduates, I can not think of anything very startling or vivid under that head. On the other hand, we receive three or four letters every week from our graduates in which they tell of things that they are doing, and they are usually things that are worth while. The spirit of our graduates, as exemplified in their work, seems to be to do something



more than merely keep school in the community. For instance, one girl from whom I received a letter this week has just had a sociable at which she made \$26. With this she will buy single seats for the school. A good many of our graduates have raised money and purchased articles for the schools in which they teach. Several have purchased organs.

Last year 14 agricultural meetings were held in different parts of the county through the instrumentality of pupils who have graduated from this school, cooperating with the county agriculturist. He reports them generally active in promoting rural welfare and advancement.

I can think of another instance where one of our graduates persuaded a young man who had left school to go back and finish the common-school course, and encouraged the boy to enter high school. He is now a junior in the high school. Another case I can think of is where a graduate persuaded a young woman to go back to school and finish the common-school course with the same result.

One of our graduates said that the mail carrier on her route told her that the people were taking more newspapers this year than last, and this is the result of the interest she has aroused in current events in her school. Three of our graduates have already been asked to come back next year, which seems to me a splendid proof of the work that they are doing. One of our young men graduates was given a raise of \$7.50 per month at the end of the first term and at the same time asked to come back next year. He has 50 pupils.

The following account was received in response to a request regarding the work done by graduates of training schools in one of the counties:

In a certain district in this county there was a very poor school building, and a very poor school because of poorly paid, untrained teachers.

A prosperous farmer there whose large family had grown up and settled around him soon comprised the majority of the residents of the district. A daughter of one of the older children of this prosperous farmer attended a training school and became a well-trained and legally qualified teacher. When it dawned upon this settlement of relatives that they had such a teacher in the family, they questioned among themselves why they should continue to hire untrained teachers and suffer from a poor school while other schools profited by the services of this worthy daughter.

At a school meeting they decided to employ this young lady for that year. She was so successful in her work with the pupils that soon the parents became interested in the school. The programs given and the social events she inaugurated brought the parents to the schoolhouse. They then began to realize what a poor place they had for a school. They became interested in the welfare of their children, and proud of the little school they had. At the next annual meeting they decided to build a new modern schoolhouse. This they did, sparing no pains in making it sanitary and convenient. They installed a furnace. They made a good well for drinking water, and made a cistern for soft water, plumbing a lavatory where the pupils could enjoy being cleanly. They built nice wardrobes, and a nice little library room separated from the main room by folding doors.

They then hired for another year the same young lady who had given such satisfaction.

She had a school and community program, a Harvest Sociable at her school this fall. It was a unique affair. The schoolhouse was decorated with shocks of corn and strings of seed corn. A motto: "Corn is King," occupied a prominent place on the front blackboard.

After a social hour a program was given. The first part of the program was a review of the work the school had done in the fall study of corn, preparing the soil, cultivating, selecting good seed, harvesting corn, curing the seed, preparing seed for planting, and judging of corn. The school had worked out a fine set of products, excelling the one gotten out by the Corn Products Co., and these were used in the different talks on the uses of corn. Maps showed the corn-growing region, and Wisconsin with its silos was not forgotten. Autumn songs livened the program.

Then came the farmers' side of the program, and three or four farmers talked on topics concerning the farm, each speaking on a subject in which his farm showed he was an expert. The teacher had shown great wisdom in asking men worthy to be heard upon subjects which supplemented her own instruction.

The children wanted me to see their basement; so the teacher took me down to see it. The furnace sat in the middle, dividing the one large room. In each corner was a playhouse, and one or two others edged in between. Each playhouse contained the rustic furniture made by the children and was supplied with rugs of their own making, pictures of their own framing, tables furnished with dishes and linen; and all was complete. The ingenuity of each family or set of children was plainly shown, and there were visible signs of a little suggestion by the teacher.

I was told that the children ate their dinners in their play dining rooms and that they often visited each other and ate dinner with each other, observing the best etiquette of the neighborhood. They were happy and proud of their lovely basement.

From another county the following report was received:

Many of the graduates of the training school have been instrumental in awakening the people of the districts in which they have taught.

The following will serve as a concrete example: Jt. Dist. 10, ———, is divided by the fact that the families live on two main roads each leading to the city of ———. In the fall of 1911 they hired a training-school graduate who thought that something ought to be done to bring the community together in a social way.

A literary program was given, after which a basket supper was held, the baskets being sold to the highest bidder. The people enjoyed the meeting so well that they voted to organize the Narrows Prairie Country Club, of which the teacher was made secretary.

With the money raised at the sale of the baskets and a small additional amount donated by the club an organ, bookcase, Babcock tester, and a lighting system were secured for the school.

The club is still in a thriving condition and has brought, besides many local people, several professors from the university to speak at the meetings.

The people of the district take part in the program by giving plays, talks, and debates. Some of the topics which have been considered are: Alfalfa growing, testing and curing seed corn, testing the dairy herd, cooperation among farmers, poultry raising, and woman suffrage.

The teacher taught the pupils how to use the Babcock tester and then allowed them to take it to their homes, keeping it about two weeks on each farm and testing the home herd. In another country district taught by a training-school graduate the classwork is so strong that the county superintendent has had the teacher put on class exercises before the teachers of the State graded schools and the school-board convention.

The work put on before the school-board convention was on the growing of alfalfa. Several of the members present questioned the class and found them able to answer their questions as intelligently as they had the teacher's.

The commission sent to the United States from Uruguay, South America, to study the educational methods of this country spent one day in ——— County. The forenoon was spent in the training school and the afternoon in the school taught by the teacher mentioned above. They were very much pleased and interested in the work they saw.

In a certain school district the people were mostly Finlanders. Some of the children could not speak a word of English. One of the farmers had a cream separator which did not work. He went to the clerk of the school board for help and was referred to the teacher. She took the machine apart, found the trouble, and fixed it. The result was that the opposition to the teaching of agriculture vanished, and money was provided for the purchase of a Babcock tester.

In a certain school request had been made for two or three years for a sweeping compound, more frequent scrubbing, and for some supplementary reading books. The requests had been continually refused. A graduate of the training school held "potato" meetings and took occasion to emphasize these requests. The result was that she got all she wanted and more than previous teachers had asked for.

As the direct result of the teaching of agriculture in one of the training schools, more than a dozen Babcock testers have been installed in the schools of the county. Corn testing has been introduced in at least 20 schools where no such work was done in previous years. Potato judging is now going on in 15 schools.

From another county the following report has been received:

At the present writing there are teaching in this county 58 graduates of the training school. Besides this number of graduates, there are at least 30 others teaching who have done some work at the training school. There are 11 of its graduates teaching in other counties of this State and two in other States. Eight of the young women have undertaken schools of one. In no case need the county or State think that the time spent by the young women in fitting themselves for the teaching profession is wasted. They will be able to help the boys and girls of to-morrow all the more because of the training they received. Six graduates are continuing their preparation for teaching at higher institutions of learning. From the reports received, they are successfully doing the work required of them at their institutions. The remainder of the graduates are either at home or pursuing other lines of work.

Each year the school has had a greater number of calls for its graduates than it has been able to fill. \* \* \* Most of the graduates have proven successful in their work. As is to be expected in any line of work, failures have occurred. In general, failures have been due to a lack of personality rather than to the things which the school can give its students in so short a time. It is impossible to transform a person in one or two years. Sometimes a lifetime can not accomplish the transformation. No school can expect to turn out as a successful teacher everyone whom it graduates, let alone all who enter it. The best recommendation I know of for the school's graduates is the long



CLASS IN SEWING, EAU CLAIRE COUNTY TRAINING SCHOOL.



TESTING CORN, EAU CLAIRE COUNTY TRAINING SCHOOL.



CLASS TESTING MILK, EAU CLAIRE COUNTY TRAINING SCHOOL.



CLASS IN GEOGRAPHY METHODS STUDYING JAPAN, EAU CLAIRE COUNTY.

tenure many of them are serving in the same school. Several have taught for three years in the same district and many for two years. Others have returned to the first district where they taught after teaching elsewhere.

The salaries of the graduates before the minimum-wage law had been passed were good, varying from \$37.50 to \$65 per month. There is a call in graded school positions for our graduates, especially young men who are also graduates of high schools. Two of our young men are filling such positions at \$65 per month. The school could not fill two similar positions this fall because we had no graduates for the places.

The school has stood for more than the instruction of pupils within the four walls of its building. It has followed its graduates in the field and has attempted to help them over difficult places. Not alone to the graduates of the school has the spirit of helpfulness gone. It has attempted to be of service to every teacher of the county. It has been the only school of its kind in the State which has given the entire teaching force of a county an opportunity for consultation every Saturday by holding school on that day. The faculty have given their time on Mondays to the visitation of schools. During its six years' existence there are but eight schools in the entire county that have not been visited. Some of the schools have had as many as six visits.

From time to time the school has sent out printed material to all schools of the county. With the help of the county superintendent it has published the quarterly, ———, which has been sent free to all teachers and school board members of the county. Other publications in which the county superintendent and training school faculty have cooperated are "Farm Accounts" and "Essentials in Education."

The ideal of the school is one of service and helpfulness to all of the teachers of the entire county all of the time.

The following is one of the replies received:

Our graduates have awakened much interest in agricultural and other industrial work. They have arranged for agricultural meetings to which outside speakers have been invited. They have organized literary societies and sewing circles and held contests of various kinds. In the corn contest (1913) 554 pupils of the county took part. Although there has been nothing startling in any one community, there has been a general awakening of interest in all phases of educational work.

#### THE WORK OF THE COUNTY TRAINING SCHOOLS OUTSIDE OF THE TRAINING OF TEACHERS.

The most important work of the county training school is to prepare teachers for country school work. This was the purpose the people had in mind when the law was first enacted. The schools have, however, many other functions which are worthy of mention:

1. The teachers in the training school aid the county superintendent in holding teachers' meetings during the year. Since these teachers are thoroughly familiar with local conditions and needs, they are able to give to the country school-teachers help and suggestions of the most practical kind.

2. The members of the training school faculty visit country schools. They do this first of all to keep in touch with the schools of the county in order that they may know the needs of these schools. The visitation is carried on also for the purpose of knowing the work that the graduates of the institution are doing. In this way they learn by observation the strength and weakness of the graduates.

This school visitation is of considerable help to the county superintendents of the counties in which the schools are located. Most of the schools have made definite provision for this visitation work.

3. The members of the training school faculty assist the superintendents in the social center work of the county. They do this in training the students to lead in this work when they get into the schools of the county, and they also help by going into the county to speak at educational gatherings of various kinds.

4. The members of the training-school faculty are students of rural problems. In order to prepare teachers for country schools they must necessarily understand country needs and country conditions.

In order that this study may be of mutual benefit to the various counties maintaining training schools, the principals have organized themselves into an association.

5. Many of the training schools assist the county superintendents in their work by preparing circulars and publications of various kinds, giving suggestions to the teachers who are working in the schools.

6. Besides visiting the country schools, the members of the faculty help the teachers of the county through correspondence. The teachers in the training schools are at the service of the country teachers at all times, and the graduates especially come to the members of the faculty with their questions.

7. Some of the training schools have undertaken to furnish educational material for country teachers. In some instances the schools loan professional books.

8. Some of the training schools are maintaining educational columns in the local newspapers. The material published in these columns is of value not only to teachers, but to the general reader.

9. Some of the training schools assist the county superintendent in conducting contests. In some instances the schools have provided for farmers' short courses. This work does much to foster educational sentiment in the different communities.

10. In a general way it may be said that a training school unifies and systematizes the school work in the county. The teachers naturally become united into a body that has a common aim and, to some extent, uniform methods. The county superintendent can, by

keeping in close touch with the work done in the training school, greatly influence the school work from year to year.

In addition to the above benefits derived from a county training school, the following have been set forth by some people:

(a) By the establishment of the county training school, more young people get additional schooling. It has been pointed out that most of the students in the training school are from the country communities. In a number of instances these students did not have convenient access to other schools.

(b) A training school has often been the means of interesting parents in the cause of education. Many of the people whose children have attended a training school have been impressed with the importance of the teachers' work and the necessity for careful preparation.

(c) The training school is an institution that especially brings the young people of the country into educational work. If the country communities are to develop educationally, they must largely do so under the leadership of their own people. There is a decided advantage in having country-bred people teaching in the country schools.

#### ADVANTAGES OF THE TRAINING SCHOOL AS AN INSTITUTION FOR TRAINING COUNTRY TEACHERS.

1. The members of the faculty are persons of maturity and are well prepared for the work, both in scholarship and experience. They are men and women who understand country life, and they are interested in its development.

2. Most of the students who attend training schools are from the country. The experiences that they have had are of great value to them when they become teachers.

3. The institution has a single purpose—the preparation of teachers for country-school work and the enrichment of country life in general. The school is vocational in nature and has, therefore, a definiteness often absent in other institutions.

4. The training schools, being local institutions, can better adapt their work to the needs of the localities they serve than can institutions that are more general in their work. The condition and needs of the people in the immediate vicinity are kept in mind in all the school work.

5. The institution is of great help to the county superintendent in all his work and enables that official to bring about educational improvements.



6. Because of its peculiar function in the educational work, the training school is hampered but little by the domination of higher institutions. It has been left free to arrange its work so that the best possible training may be given the young people for their particular work.

### SUGGESTIONS FOR IMPROVING THE WORK OF THE COUNTY TRAINING SCHOOLS.

During the time that the county training schools have been in existence the teachers in these schools and the county superintendents have had a good opportunity to study the best ways of improving the country schools through the training of teachers. Every year some improvements have been made, either in the courses of study, in the selection of the material taught in the various branches, or in the method of teaching the subject matter. The following are some of the suggestions for improvement that have been made:

1. The standard of admission to the regular work of the training school should be raised whenever the conditions make it possible. One of the weaknesses of the training-school work is the immaturity of the students. Some of the schools have done a great deal toward urging immature and poorly prepared students to take further preparatory work in some other school.

2. The consensus of opinion seems to be that the training-school course is not comprehensive enough. The lengthening of the course seems to be generally desirable. The course was increased from one year to two years soon after the schools were established, and many are now considering the feasibility of making the course three years or of requiring an entrance preparation equivalent to two years beyond the elementary school.

The fact should be kept constantly in mind, however, that the material given in the training school should be of such a nature that it will make the teachers strong in their teaching rather than supply what is merely professional or cultural.

3. In the introduction of industrial work, care should be taken to secure instructors who have had successful experience in adapting the work of the schoolroom to the needs of home life. It is possible to make these so-called practical subjects impracticable and thus occasion much waste of time, both in the training school and in the country school.

4. The training school should do all that it possibly can to broaden the interests of the students. Few of them have had the opportunity to see much of life outside of their immediate environment. Whenever possible, students should be taken to institutions of various kinds in order that they may see how things are done. Visits to

manufacturing establishments, printing houses, Government offices, etc., are exceedingly valuable.

5. The observation and the practice work should be strengthened. As far as possible the students should observe good teaching. If the students see the work of teachers who are doing only mediocre work, the chances are that their standards will be low. In this observation and practice work country conditions should be kept in mind. Where the students do their observation work in city grades, care should be taken to select for observation teachers that know how to make the best use of the time.

6. The training schools should give some time to preparing students for leadership in country communities. It is not to be expected that these young people will be able to take charge of community organizations on an extensive scale, but much can be done to instruct them in ways of getting the people of the community interested in the school. A bulletin entitled "Social and Civic Center Work in Country Communities" has been used by the training schools and forms a basis for further instruction. The training school should not be satisfied merely to graduate young people who are able to teach the academic subjects fairly well, but they should have some definite knowledge as to what may be done to get the community to realize the true value of the school.

7. Institutions that train teachers for school work should aim to give their students knowledge regarding school buildings, school equipment, sanitation, and the like. Too often the teacher can give no satisfactory information concerning school furniture, blackboards, etc. The training schools should give their students this information.

#### OTHER INSTITUTIONS IN WISCONSIN PREPARING TEACHERS FOR COUNTRY SCHOOL WORK.

1. *Normal schools.*—There are at present in Wisconsin six State normal schools giving courses for the training of teachers for country schools. Data regarding these courses are given in the tabulation on page 38.

At Whitewater and Stevens Point the students taking the training course for rural teachers have a separate assembly room under the immediate charge of the director of the course. At the Whitewater school the director has an assistant, and the two teachers do most of the work in this department, the students going to the other teachers of the faculty for music, domestic science, manual training, drawing, and agriculture.

At Stevens Point the students take part of the other branches under the members of the regular normal school faculty, but the professional work is done by the director of the course.

In the other schools the students are seated in the same room with the rest of the students of the normal school. The professional work is done by the director of the course, but the academic work is taken with the regular teachers of the normal school faculty.

The courses of study in these departments are similar to the courses of study offered in the county training schools. Students with sufficient preparation may finish the work in a year, while others are required to take two years.

The directors of the rural school courses, like the principals of the county trading schools, work with the county superintendents of the counties in which the schools are located (and also neighboring counties) in trying to advance the interests of the county schools. The diplomas received upon the completion of these courses of study are equivalent to the diplomas received upon the completion of a county training school, but are limited to the county in which the normal school is located. The standings received at the school may be accepted by county superintendents anywhere in the State in granting certificates.

The rural school course at Oshkosh was discontinued in 1915.

*State normal schools of Wisconsin having special courses for the training of rural teachers.*

State normal schools.	Director of course.	Year established.	Enrollment, 1913-14.	Number of graduates.						Graduates teaching in 1913-14.
				In 1910.	In 1911.	In 1912.	In 1913.	In 1914.	Total.	
Whitewater...	G. A. Schmidt.....	1909	42	2	3	16	17	23	61	38
La Crosse...	J. R. Moore.....	1909	51		15	15	21	23	74	34
River Falls...	Jas. I. Malott.....	1910	103			8	23	38	69	122
Oshkosh...	E. E. Robey.....	1910	44		11	14	21	15	61	114
Stevens Point	O. W. Neale.....	1912	71				11	33	44	11
Platteville...	J. C. Brockert.....	1914								
Total <sup>1</sup> .....			311	2	29	53	93	132	309	11

<sup>1</sup> Complete data not available.

<sup>2</sup> The total number of graduates in 1915 was 149.

2. *High schools.*—In 1913 the legislature enacted a law providing that after July 1, 1915, all persons entering upon the work of teaching must have had at least two years' schooling beyond the elementary course and that one of these years must be professional training. In order to provide a sufficient supply of teachers for the schools of the State when this law should go into effect, another measure was enacted providing for the establishment of teachers' training courses in certain high schools of the State. The following summary gives the principal features of this law:

1. Any free high school or high school having a course of study equivalent to a free high school and having four or more teachers, may establish a teachers' training course, *except that*—

2. Such schools *can not* be established in counties already having county training schools for teachers.

3. The courses of study and the qualifications of teachers must be approved by the State superintendent.

4. These courses must be administered for a period of not less than nine months during the school year ending June 30.

5. Any teacher employed to give instruction in the professional work and practice teaching shall be a graduate of the advanced course of a Wisconsin State normal school, or a school offering a course of study equivalent to the course of study offered in the Wisconsin State normal schools, and shall, in addition, present evidence of at least two years of successful experience.

6. Such teacher must devote full time to the work of the training course.

7. At least 10 persons must elect to take such course during the current year.

8. The work shall meet the approval of the State superintendent and reports must be made to him.

9. The certificate of graduation qualifies the holder to teach and shall, upon evidence of successful teaching for at least seven school months, when countersigned by the county superintendent of the county in which the training school is located, legally qualify the holder to teach in that county for a period of five years from the date when such certificate was granted, and shall also be a legal qualification to teach in any department of any State graded school in that county, the principalship of a State graded school of the first class excepted. Standings on certificates of graduation from an approved training course may be accepted by any county or city superintendent in place of actual examination under certain conditions.

10. If the administration of such training course meets the approval of the State superintendent, the State will aid to an amount equal to the sum expended for the salary of the duly qualified and approved teacher employed in this department. This special aid is apportioned as is other special State aid; that is, the teachers are paid by the district as other teachers are paid. The amount as above will be refunded at the time of the apportionment of special State aid.

Under this act 27 high schools of the State introduced teachers' training courses in the fall of 1913. The following table shows the enrollment in these courses during the year 1913-14 and the number of graduates in June, 1914. Since this is the first year the courses were established, the number of graduates is small. Only those students who had finished or almost finished the high-school course previous to 1913 could complete the work in one school year. A few of the high schools had introduced a teachers' training course before the law was enacted, and for this reason had a considerable number of students who were ready to complete the work the first year.

The annual appropriation by the State for these courses in the high schools is \$25,000.

*Wisconsin high schools in which teachers' training courses have been established.*

Location of schools.	Counties.	Enrollment, 1913-14.			Graduates, 1914.		
		Male.	Female.	Total.	Male.	Female.	Total.
Black River Falls..	Jackson.....	0	26	26	0	1	1
Chilton.....	Calumet.....	3	13	16	0	0	0
Chippewa Falls.....	Chippewa.....	0	41	41	0	15	15
Crandon.....	Forest.....	3	8	11	0	0	0
Darlington.....	Lafayette.....	0	22	22	0	0	0
Dodgeville.....	Iowa.....	0	26	26	0	3	3
Ellsworth.....	Pierce.....	0	24	24	0	2	2
Fennimore.....	Grant.....	0	13	13	0	1	1
Florence.....	Florence.....	1	15	16	0	0	0
Galesville.....	Traverseau.....	3	36	39	0	5	5
Grantsburg.....	Burnett.....	2	13	15	0	1	1
Green Bay.....	Brown.....	0	21	21	0	0	0
Hayward.....	Sawyer.....	2	11	13	0	0	0
Jefferson.....	Jefferson.....	1	30	31	1	3	4
Mayville.....	Dodge.....	1	19	20	0	8	8
Neillsville.....	Clark.....	2	16	18	0	1	1
New Richmond.....	St. Croix.....	0	36	36	0	3	3
Omro.....	Winnebago.....	0	25	25	0	66	66
Plymouth.....	Sheboygan.....	6	30	36	2	17	19
Ripon.....	Fond du Lac.....	2	27	29	0	1	1
Shawano.....	Shawano.....	1	10	11	1	2	3
Spooner.....	Washburn.....	1	14	15	0	5	5
Stoughton.....	Dane.....	1	23	24	0	4	4
Tomah.....	Monroe.....	0	30	30	0	7	7
Washburn.....	Bayfield.....	0	27	27	0	1	1
Waukesha.....	Waukesha.....	3	9	12	0	1	1
Westfield.....	Marquette.....	2	21	23	0	0	0
Total <sup>1</sup> .....		34	586	620	4	93	97

<sup>1</sup> The total enrollment for the year 1914-15 was 758. Of these, 59 were men and 699 women. There were 265 graduates—19 men and 246 women.



DEPARTMENT OF THE INTERIOR  
BUREAU OF EDUCATION

BULLETIN, 1916, NO. 18

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# PUBLIC FACILITIES FOR EDUCATING THE ALIEN

PREPARED IN THE DIVISION OF IMMIGRANT EDUCATION

BY

FREDERIC ERNEST FARRINGTON  
BUREAU OF EDUCATION



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## LETTER OF TRANSMITTAL

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DEPARTMENT OF THE INTERIOR,  
BUREAU OF EDUCATION,  
*Washington, August 10, 1916.*

SIR: In 1910 there were in the United States more than thirteen millions of foreign-born men, women, and children, and more than four-fifths of those coming in that year were from southern and eastern European countries and other countries in which the percentage of illiteracy is very large. Nearly three millions of these foreign-born men, women, and children over 10 years of age were unable to speak the English language, and more than one million six hundred thousand were unable to read and write in any language. The four years following the census year of 1910 added largely to all these classes, the average immigration for these years being more than one million annually. The tide has receded since the beginning of the war in Europe, but it will probably attain its former level and more when the war is over.

For their good and our own we may not let these people remain among us either as citizens or aliens without giving them adequate opportunity and every proper inducement to learn the language of the country and whatever else may be necessary to enable them to understand the best in American social, industrial, and civic life. A general feeling of the importance of this problem has given rise to three questions:

1. What is now being done for the education of those who come to our shores after having passed the age of compulsory school attendance?
2. What should be done for them?
3. How can it best be done?

To help toward the answer of the first of these questions, I recommend the publication of the accompanying manuscript, prepared by Dr. Frederic Ernest Farrington, of the Division of Immigrant Education in this bureau. Other manuscripts intended to assist in answering the second and third of these questions are in preparation and will be submitted for publication later.

Respectfully submitted.

P. P. CLAXTON,  
*Commissioner.*

The SECRETARY OF THE INTERIOR.



# PUBLIC FACILITIES FOR EDUCATING THE ALIEN.

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## Chapter I.

### THE PROBLEM.

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Census returns in the last two decennial reports have brought out with increasing force the growing importance of the alien problem.<sup>1</sup> Every citizen of the United States to-day is an immigrant or the descendant of an immigrant. Proximity to the ocean-crosser in point of time is the chief factor which fixes the position of each one in the categories of the census classification.

A century and a half ago it was finally determined that English should thenceforth be the language of the land. From the beginning of the colonial period English had been the language of the great majority of the arrivals from across the sea, and it continued so to be for many years thereafter. Subsequent arrivals for many decades accepted unquestioningly the responsibility of learning the language of their adopted country. So long as the newcomers were of Teutonic stock the problem of educating the aliens presented no particular difficulty. They all came from countries where learning occupied an honorable place in the minds of the common people, and the problem of illiteracy was almost negligible. In fact in some of the countries it was only a small proportion of what it was among the native-white population of America at the same time.

With the change in the character of the immigrant tide, however, when immigrants began to come from southern and eastern Europe, new difficulties presented themselves. In the decade 1851-1860, the arrivals from southern and eastern Europe formed only about 5 per cent of the total number of immigrants. In the following decade this proportion had doubled; in another decade it had doubled again; and then for 20 years it remained almost stationary. Reduced to figures, this means 5 per cent in 1851-1860; 11 per cent in 1861-70; 26 per cent in 1871-1880; and 28 per cent in 1881-1890. Then the flood from eastern and southern Europe burst forth with increased force, nearly doubling in the following decade; and finally, in the decade 1901-1910, it increased nearly by half.

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<sup>1</sup> Table 1 shows the number of foreign-born whites, in each State, together with their per cent of the total population.

This change is shown schematically in the subjoined diagram:

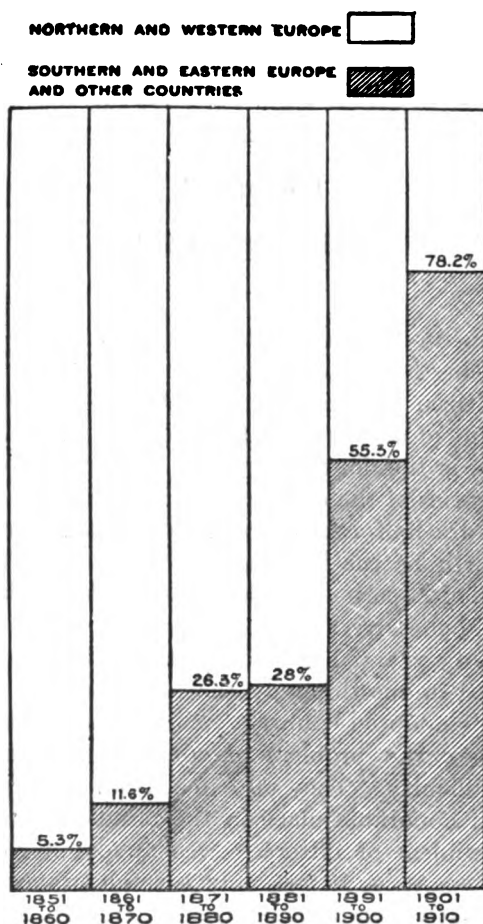


DIAGRAM 1.—Immigration into the United States, 1851-1910, showing per cent of increase from the less literate nations.

Thus in the decade, 1891-1900, well over half the immigration tide arose in the countries of southern and eastern Europe, and 10 years later these same countries were responsible for over three-fourths of our new arrivals. It is not surprising, therefore, that the sense of responsibility for acquiring a facility in the use of English changed inversely as the number of immigrants from the less literate nations. In 1890 over half the population of one of the kingdoms of the Dual Monarchy, from which a considerable proportion of immigrants comes, were classed as illiterate. Statistics for 1910 show this figure still to be over 33 per cent. Other illiteracy figures for that eastern section of Europe range from Austria with 13.7 per cent, Roumania with 60.6 per cent, and Russia with 69 per cent, to Servia

with 78.9 per cent of her population unable to read and write their own language.

If it is justifiable to assume that the literacy of the immigrants from these countries is measured by that of the population of the countries, it is evident that the United States must assume an additional burden in return for economic aid derived from their labor in order to raise these newcomers to the literacy level of its own people, which at best is quite too low even for the native-born whites.

According to the census of 1910,<sup>1</sup> there were 1,650,361 foreign-born whites over 10 years of age who could not read or write in any language, a number representing 12.7 per cent of the entire foreign-born white population of the country.<sup>2</sup> In contrast with the illiteracy among the native whites, 3 per cent, this figure is disquietingly large.

When inability to speak English is considered, an even more serious situation is disclosed, for in 1910 practically three million foreign-born white persons in the United States 10 years of age and over (to be exact, 2,953,011) were ignorant of the language of the country.<sup>3</sup> While it is true that some of these were merely sojourners in the land who would ultimately find their way back whence they came,<sup>4</sup> it is evident that during their stay in the United States they are subject to the laws and regulations of the country and must be held responsible for obeying these laws and regulations. Even though they may feel no personal need for acquiring English the welfare and safety of the Nation make it imperative that this obligation be forced upon them. The more these foreigners settle in groups among their own kind, the less likely are they to learn English of their own accord, and the more necessary does it become that municipal, State, or National authorities begin seriously to consider the problem.

In 1910 the 2,953,011 foreign-born white persons in the United States 10 years of age and over who were unable to speak English represented 22.8 per cent of the total foreign-born population of the country. While these are scattered throughout all the States of the Union, they are largely found in the northeastern quarter of the country. More than two-thirds of them are in the States of New York, Pennsylvania, Illinois, Massachusetts, Ohio, New Jersey, Texas, Wisconsin, and Michigan. With the exception of Texas, the States just noted are all north of the Ohio and east of the Mississippi.

<sup>1</sup> In the subsequent pages of this bulletin all figures relating to population, size of communities, illiteracy, inability to speak English, and the like for the United States are based upon the returns of the census for 1910.

<sup>2</sup> For illiteracy figures among foreign-born whites for the various States, see Table 2, p. 33.

<sup>3</sup> For figures relating to inability to speak English among foreign-born whites for the various States, see Table 3.

<sup>4</sup> From the most trustworthy information available, this represents about one-third the total number.

Each of them has more than 100,000 non-English-speaking foreigners, with numbers ranging from 102,000 in Michigan to 597,000 in New York. Whereas these States have 67.6 per cent of the total foreign-born white population of the country, they have 73.6 per cent of those unable to speak English. In other words, these figures would seem to strengthen the assumption that massed groups of foreigners engender a disinclination to learn English. As numbers increase, the problem increases in more than arithmetical ratio. Census figures, which show that the number of persons unable to speak English increased 1,735,731 between 1900 and 1910, or 142.6 per cent, as opposed to an increase of 29.3 per cent in the total number, should therefore provide food for serious thought.

Consideration of the age distribution of these people suggests an even more serious condition, for of the nearly three million who can not use the English language as a medium of communication, 2,565,612 are over 21 years of age, in other words, well beyond the compulsory school-attendance age and therefore beyond the period when in the ordinary course of events they are likely to attend school in order to acquire the common-school branches. Of the two and one-half million over 21 years of age who can not speak English, only 35,614 are in school, a paltry 1.3 per cent.<sup>1</sup> This situation is shown graphically and forcefully in the following diagram:

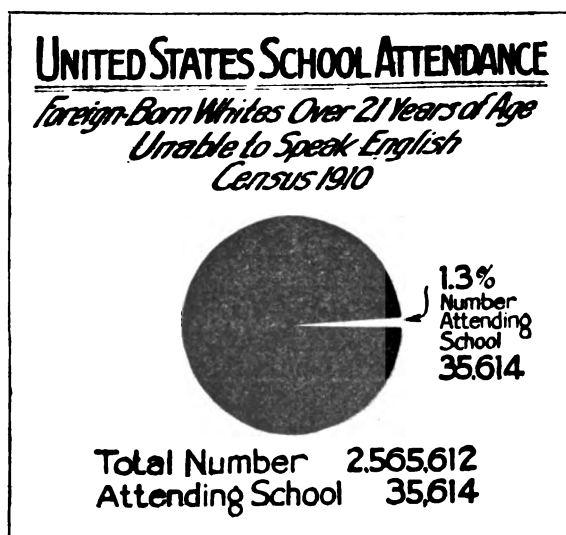


DIAGRAM 2.

Handicapped by a language disability, they not only find barriers in the way of securing ready employment, but they fall into the hands of more or less unscrupulous fellow countrymen who exploit their language ignorance, or they become a ready prey to the agitator

<sup>1</sup> For figures showing school attendance among foreign-born whites by age groups for the various States, see Table 4.

of smooth speech and are thus likely to become a menace to the welfare of both Commonwealth and Nation.

The immediate significance of this is suggested by a study of the per cent of males of militia age (18 to 44 years) in New England. The figures in the following table are represented graphically in the diagram shown below:

*Total males of militia age (18 to 44 years) in New England.*

Classes.	Number.	Per cent.
Native parentage.....	510,616	34.3
Negro and others.....	20,271	1.4
Foreign or mixed parentage.....	356,428	24.4
Foreign-born white.....	581,585	39.9

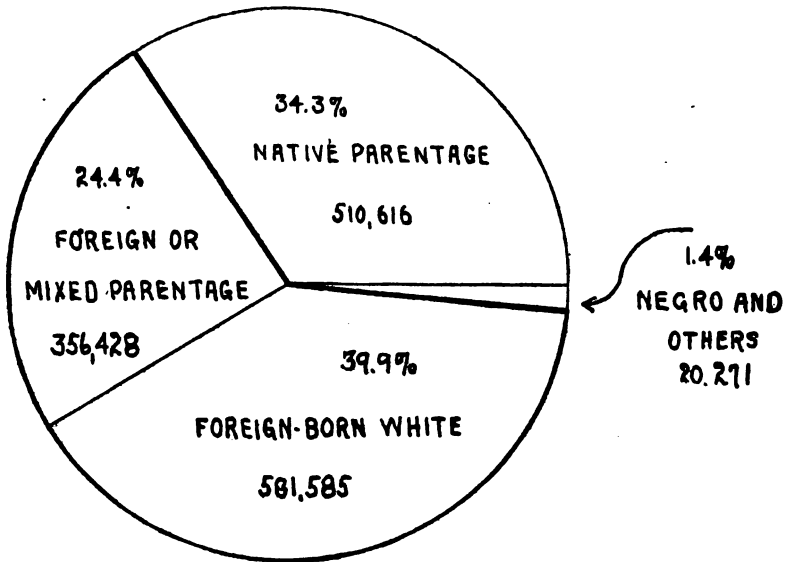


DIAGRAM 3.—Distribution of males of militia age (18 to 44 years) in New England according to nativity and parentage.

Only less striking are the corresponding data for the Middle Atlantic States.

Since complete citizenship should be the ultimate desire of every foreigner who settles in the country permanently, there is an added reason for putting the acquisition of the speech of the land within reach of all, for according to Federal regulations ability to read and speak English is demanded before the rights and privileges of citizenship may be conferred.



## Chapter II.

### LEGAL ASPECTS.

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Public schools are universal throughout all the States of the Union. They have been established in response to the deep-seated conviction that education is essential for individual happiness and efficiency, for civic welfare, and for national prosperity. This conviction has been embodied in constitution and statute in order to guarantee the continuance of a system of schools for the people of the land, and to-day scarcely a hamlet in the whole country lacks facilities for providing the youth with the means for further material, intellectual, and spiritual progress.

"People" in the sense above, however, has contemplated the American people. It is only when one realizes that not all the people of this country are fundamentally American, with American standards and American ideals, that it becomes apparent that the United States has a large group of residents who are not affected by the educational organization established by the fathers. Whereas the law has safeguarded the native population, what provision does it make for assuring that the foreigner should have an educational equipment comparable to that within reach of the native born, at least to the minimum safety limit imposed upon the native population?

From the legal standpoint, immigrant education deals with three quite distinct groups: (1) Children who come within the provisions of the compulsory school-attendance law (usually up to 14 or 15 years); (2) youth of both sexes between the close of the compulsory school-attendance period and the close of the school-age period (18, 20, or 21 years, according to the State); and (3) all above the age limits just indicated, who may be termed adults from the school-age point of view.

Children of the first group present no peculiar problem. They are taken care of more or less effectively by the compulsory school-attendance law, which affects all children alike. In communities where the machinery for the enforcement of this law is not altogether efficient, undoubtedly too many escape entirely, especially if they come in toward the end of the compulsory period. Under a co-operative arrangement between the United States Bureau of Education and the Bureau of Immigration of the Department of Labor,

commissioners of immigration at the ports of entry are notifying the various school authorities throughout the country of the arrival of immigrant children between the ages of 4 and 16 years whose destination falls within the jurisdiction of these school authorities. Besides the name of the child, facts are furnished to facilitate identification.

In this way the machinery will be set in motion to enable local school authorities to learn almost immediately of the arrival of alien children within their midst and thus make it possible to bring these children into school before they are spirited away into unlawful employment. Once the law lays its hands upon such children, the chances are good that they can be kept long enough to acquire at least a working knowledge of English and some appreciation of civic life. Delay of even a few months, however, may immensely decrease the chances of Americanizing these children. Everything now depends upon the local school authorities. Vigilance on their part is bound to result in incalculable good, while indifference dooms the effort to failure.

In normal times, about 160,000 children between the ages of 5 and 16 enter the United States annually, 80 per cent coming from the non-English-speaking countries of southern and eastern Europe, particularly from southern Italy, from Poland, Hungary, Russia, and other adjoining States. Unless these children come early into contact with American ideals through the school system, they are likely to prove unfit for American citizenship.

For those who fall within the second category, from the close of the compulsory school-attendance period to the upper reaches of the school-age period, very little legislation is applicable. Massachusetts forms a conspicuous exception to the general rule, since for nearly 30 years there has been a law upon her statute books requiring illiterate minors over 14 years of age to attend some school if they have lived for a year in a city or town which maintains an evening school, although not until 1898 was instruction in the English language added to the list of subjects which must be offered in these schools. Beginning with 1906, the standard of literacy was fixed by legislation, a graduated scale being established, so that in 1908 and thereafter literacy was interpreted to mean such ability to read and write as is required for admission to the fourth grade. Five years later this was increased to the completion of the fourth grade.

Labor legislation of 1909 made this law more drastic by prohibiting the employment of any minor coming within the purview of this education law, unless he were attending a public evening school. Furthermore, in accordance with State law, any town may maintain, and every city or town in which labor certificates are granted to 20 or more persons within a year to whom this illiteracy law applies,

shall maintain an evening school during the following year. In effect, then, this legislation reaches every illiterate minor as defined above between 16 and 21 years of age, employed or unemployed, married or single, living in a community where evening schools are maintained. No other State has done so much to eliminate illiteracy. At best, however, many are bound to escape, for according to the most trustworthy statistics available on March 1, 1916, for the year 1914-15, there were 23 communities in the State each having over 5,000 inhabitants and over 1,000 foreign-born whites where no evening schools were found, in one of which, according to the census returns for 1910, the foreign-born whites comprised 47 per cent of the population. More striking still is the fact that 3 of the 23 communities had over 10,000 inhabitants.

Connecticut likewise has a mandatory provision in its education law for the establishment of evening schools, every town having a population of 10,000 or more being required to establish and maintain such schools for the instruction of persons over 14 years old. Furthermore, in towns where evening schools are found, illiterates between 14 and 16 years may not be in employment save on condition that they have been in regular attendance at evening school during the preceding month.

New York, in its cities of the first and second class, may require all persons between 14 and 16 years of age who have work certificates and who have not completed the elementary school course to attend part-time, or continuation, or evening schools, but the imposition of this requirement is optional with the community.

Permissive provisions for the establishment of evening schools are furthermore found in the education laws of several States; to wit, California, Georgia, Kansas, Missouri, New Jersey, New York, Ohio, Pennsylvania, Vermont, and Wisconsin. Nearly all the so-called immigration States are thus covered, Illinois, the most significant exception, reaching illiterates between 14 and 16 years of age through the medium of labor legislation. In that State attendance at night school may be accepted in lieu of passing the literacy test.

Permissive legislation, however, seldom accomplishes its purpose, and there is little reason to believe that these States in this regard form any exception to the general rule. The following figures for the principal immigration States (i. e., all those having over 500,000 foreign-born whites) will support this assertion:

*Number of evening schools in the principal immigration States (i. e., States with over 500,000 foreign-born whites).*

States.	Number of foreign-born whites.	Number of urban centers <sup>1</sup> —		Number of evening schools in 1914-15. <sup>2</sup>
		With over 2,500 inhabitants.	With over 1,000 foreign-born whites.	
New York.....	2,729,272	148	71	41
Pennsylvania.....	1,436,719	263	127	42
Illinois.....	1,202,560	144	32	19
Massachusetts.....	1,051,060	152	117	65
New Jersey.....	658,188	88	61	30
Ohio.....	597,245	129	40	20
Michigan.....	595,524	77	43	19
Minnesota.....	543,010	48	32	8
California.....	517,250	70	30	9
Wisconsin.....	512,509	73	38	19
Total.....		1,202	591	272

<sup>1</sup> United States census, 1910.

<sup>2</sup> Figures up to Mar. 8, 1916, from data on file at the Bureau of Education, Division of Immigrant Education.

While the figure 1,000 foreign-born whites gives a more or less arbitrary dividing line, it appeared advisable to establish some definite basis for differentiation, and this seemed a convenient division point. One should not conclude that every community above this limit has an acute alien problem, and that in no case below this figure is there crying need for educational facilities to care for the foreign born. On the other hand, the number of foreign born does not give an accurate measure of the need. Maynard, Mass., with 3,002 foreign-born whites out of a total population of 6,390 and no evening school, has a distinctly more serious problem to face than Savannah, Ga., with 3,382 foreign-born whites out of 65,064, likewise without an evening school, or Evansville, Ind., with 4,462 foreign-born whites out of 69,647 and no evening classes for foreigners. In the majority of instances, however, it is fair to say that 1,000 foreign-born whites in any community deserve some evening school facilities, especially since more than one in five of these on the average will be unable to speak English, according to the figures for the country as a whole at the time of the 1910 census.

According to the foregoing table, about half the cities (following the census nomenclature that every community of 2,500 and over is classed as urban) covered by these figures have as many as 1,000 foreign-born whites, and less than half of these cities provide evening-school facilities. It is evident, therefore, that permissive legislation for the establishment of evening schools offers slight guarantee that the schools will actually be provided.

One may safely conclude that the age group 10 to 14 years of the foreign-born white population unable to speak English, representing

56,405 for the whole country, will be adequately taken care of by the school machinery already in existence. This conclusion is still further strengthened by the fact that 86.1 per cent of the total foreign-born white population within that age group (10 to 14) are in school. As age increases, the foreign-born white child is less and less likely to be found in school. Linguistic difficulties make it improbable that he will be found in any of the regular schools, and the table on page 36 shows that special opportunities, as measured by the prevalence of evening schools in the 10 States under consideration, are totally inadequate. In fact less than half the communities in the immigration States provide evening-school facilities for the alien.

For those of 21 years of age and over unable to speak English, the problem is acute and distressing. With 2,565,612 foreign-born white persons who fall within this age group in the country in 1910 suffering from this disability, and only 35,614 foreign-born white adults in school, or 1.3 per cent, it is evident that practically no aliens are making any systematic effort to acquire the English language. Since it is not certain that all these 35,000 are drawn from the non-English-speaking group, the real facts are probably even worse than the figures would seem to indicate.

Undoubtedly present facilities are already available for increasing by manyfold this insignificant number enrolled in school. The successful campaigns undertaken in cities like Detroit and Syracuse under the inspiration of the National Americanization Committee and with the valued support of the chambers of commerce justify this assertion. Unsatisfactory attendance upon evening classes is partly due to ignorance on the part of the foreign-born population as to the facilities for education that may be had for the asking. This can, of course, be remedied by awakening public sentiment to the necessity of bringing these opportunities to the attention of the foreigner through Americanization meetings, citizenship addresses, publicity campaigns in the various foreign languages, and the like, but even when all those means have been exhausted, there is still much to be done.

In many instances education laws themselves need to be changed, and in some cases even the State constitution. California is the only State in the Union which mentions evening schools by name in its constitution:<sup>1</sup> "The public-school system shall include day and evening elementary schools and such day and evening secondary schools \* \* \*."

Missouri does this in effect when it grants to the general assembly the right to "establish and maintain free public schools for the

<sup>1</sup> The following material relating to constitutional and legislative provisions for evening schools is based largely upon Hood, W. R., "Digest of State Laws Relating to Public Education," Bureau of Education, Bulletin No. 47, 1915.

gratuitous instruction of all persons in this State between 5 and 6 years of age and over 20 years of age."

In some States constitutional provisions militate seriously against the establishment of free evening schools for adults, unless the community is prepared to support them entirely from its own resources. This barrier operates indirectly in those States which provide for free schools for the gratuitous instruction of all residents between certain ages, as in Colorado. It becomes effective in others by implication, as in South Dakota, where the school fund is distributed according to the number of children of school age. In still other States, the same result is reached more directly and positively, as in the case of Iowa, where the school fund is distributed on the basis of youth between the ages of 5 and 21 years. The following 20 States have such limitations: Alabama, Arizona, Arkansas, Colorado, Iowa, Kansas, Kentucky, Louisiana, Minnesota, Mississippi, Montana, Nebraska, New Mexico, North Carolina, North Dakota, Oklahoma, Oregon, South Carolina, South Dakota, Wyoming.

The following are extracts from the constitutions embodying these provisions:

*Alabama.*—Art. XIV, sec. 256: The legislature shall establish, organize, and maintain a liberal system of public schools throughout the State for the benefit of the children thereof between the ages of 7 and 21 years. The public-school fund shall be apportioned to the several counties in proportion to the number of school children of school age therein \* \* \*.

*Arizona.*—Art. XI, sec. 6: The legislature shall provide for a system of common schools by which a free school shall be established and maintained in every school district for at least six months in each year, which school shall be open to all pupils between the ages of 6 and 21 years.

Sec. 8. The income derived from the investment of the permanent State school fund and from the rental derived from school lands, with such other funds as may be provided by law, shall be apportioned annually to the various counties of the State in proportion to the number of pupils of school age residing therein.

*Arkansas.*—Art. XIV, sec. 1: The State shall ever maintain a general, suitable, and efficient system of free schools whereby all persons in the State between the ages of 6 and 21 years may receive gratuitous instruction.

*Colorado.*—Art. IX, sec. 2: The general assembly shall, as soon as practicable, provide for the establishment and maintenance of a thorough and uniform system of free public schools throughout the State wherein all residents of the State between the ages of 6 and 21 years may be educated gratuitously.

*Iowa.*—Art. IX, Part II, sec. 7: The money subject to the support and maintenance of common schools shall be distributed to the districts in proportion to the number of youths between the ages of 5 and 21 years, in such manner as may be provided by the general assembly.

*Kansas.*—Art. VI, sec. 4: The income of the State school funds shall be disbursed annually, by order of the State superintendent, \* \* \* in equitable proportion to the number of children and youth resident therein between the ages of 5 and 21 years.

*Kentucky*.—Sec. 186: Each county in the Commonwealth shall be entitled to its proportion of the school fund on its census of pupil children for each school year.

*Louisiana*.—Art. 248: There shall be free public schools for the white and colored races, separately, established by the general assembly, throughout the State, for the education of all the children of the State between the ages of 6 and 18 years. \* \* \* All funds raised by the State for the support of public schools, except the poll tax, shall be distributed to each parish in proportion to the number of children therein between the ages of 6 and 18 years.

*Minnesota*.—Art. VIII, sec. 2: And the income arising from the lease or sale of said school land shall be distributed to the different townships throughout the State, in proportion to the number of scholars in each township, between the ages of 5 and 21 years.<sup>1</sup>

*Mississippi*.—Art. VIII, sec. 206: The common school fund shall be distributed among the several counties and separate school districts in proportion to the number of educable children in each.

*Montana*.—Art. XI, sec. 5: The interest on all invested school funds of the State, \* \* \* shall be apportioned to the several school districts of the State in proportion to the number of children and youths between the ages of 6 and 21 years, residing therein respectively.

*Nebraska*.—Art. VIII, sec. 6: The legislature shall provide for the free instruction in the common schools of this State of all persons between the ages of 5 and 21 years.

*New Mexico*.—Art. XII, sec. 1: A uniform system of free public schools sufficient for the education of, and open to, all the children of school age in the State shall be established and maintained.

*North Carolina*.—Art. IX, sec. 2: The general assembly \* \* \* shall provide by taxation and otherwise for a general and uniform system of public schools, wherein tuition shall be free of charge to all the children of the State between the ages of 6 and 21 years.

*North Dakota*.—Art. IX, sec. 154: The interest and income of this fund \* \* \* shall be faithfully used and applied each year for the benefit of the common schools of the State, and shall be for this purpose apportioned among and between all the several common-school corporations of the State in proportion to the number of children in each of school age, as may be fixed by law.

*Oklahoma*.—Art. XIII, sec. 1: The legislature shall establish and maintain a system of free public schools wherein all the children of the State may be educated.

*Oregon*.—Art. VIII, sec. 4: Provision shall be made by law for the distribution of the income of the common-school fund among the several counties of the State in proportion to the number of children resident therein between the ages of 4 and 20 years.

*South Carolina*.—Art. XI, sec. 5: The general assembly shall provide for a liberal system of free public schools for all children between the ages of 6 and 21 years.

*South Dakota*.—Art. VIII, sec. 3: The interest and income of this fund \* \* \* shall be for this purpose apportioned among and between all the several public-school corporations of the State in proportion to the number of children in each of school age, as may be fixed by law.

*Wyoming*.—Art. VII, sec. 8: Provision shall be made by general law for the equitable distribution of such income among the several counties according to the number of children of school age in each.

Sec. 9. The legislature shall make such further provision, by taxation or otherwise, as with the income arising from the general school fund will create and maintain a thorough and efficient system of public schools, adequate to the proper instruction of all the youth of the State, between the ages of 6 and 21 years, free of charge.

<sup>1</sup> But, see legislative enactment infra, p. 19.

State school laws supplement and apply the constitutional provisions. These are summed up for the 10 principal immigration States in the following digest:

*California.*—Cities are generally administered under separate charter wherein are defined the powers and duties of school boards. In cities of the fifth class, school boards are granted general authority to establish evening schools.

*Illinois.*—Night schools are recognized in the child-labor law. Attendance at such schools is recognized as satisfying the provision of the law prohibiting the employment of any child between 14 and 16 who can not read and write.

*Massachusetts.*—Any town may and every city or town in which there are issued during the year of September 1 to August 31 certificates authorizing employment of 20 or more persons who do not possess the educational qualifications enumerated in the compulsory attendance law of the State shall maintain during the following school year an evening school for instruction of persons over 14 years old in orthography, reading, writing, the English language and grammar, geography, arithmetic, industrial drawing (both free-hand and mechanical), the history of the United States, physiology and hygiene, and good behavior; such other subjects may be taught as may be determined by the school committee.

*Michigan.*—No statement, direct or otherwise.

*Minnesota.*—School board of independent district may also provide for admission of nonresident pupils and those above school age and fix tuition of such pupils.  
\* \* \* Such boards may also establish and maintain evening schools for persons over 10 years old unable to attend day school and receive State aid for same.

*New Jersey.*—Board of education of any district may maintain evening schools for education of residents over 12 years old; \* \* \* Said board may establish and maintain a public evening school for instruction of foreign-born residents over 14 years old in the English language and in government and laws of New Jersey and of the United States; teachers in such schools must hold special teachers' certificates; \* \* \* course of study in such school must be approved by State board. Each district maintaining evening school or schools shall receive from the State for such school or schools an amount equal to that raised by the district, such aid not to exceed \$5,000 per year for any district.

*New York.*—Board of education of each school district and of each city may maintain free night schools.

*Ohio.*—Upon petition of parents or guardians of not less than 25 school children who are prevented from attending day school, the school board in any district shall organize an evening school; teachers for such schools must hold regularly issued teachers' certificates; board may discontinue such school when average attendance falls below 12; any person over 21 years old may be permitted to attend the evening school upon payment of tuition. The schools of each district shall be free to all youths between 6 and 21 years of age resident therein.

*Pennsylvania.*—The board of school directors of any district of second, third, or fourth class, upon application of parents of 25 or more pupils above 14 years, shall open a free evening school for instruction in spelling, reading, writing, arithmetic, and such other subjects as board may determine; evening schools shall be kept open for at least 4 months per year, 20 days a month, and 2 hours each evening; no student shall be admitted unless employed during the day; evening schools may be closed when the average attendance falls below 15. Boards may admit persons under 6 and over 21 to suitable special or vocational schools.

*Wisconsin.*—Every community of over 5,000 inhabitants must and every one of less than 5,000 may have an industrial education board, a part of whose duties shall be the fostering, establishing, and maintaining of evening schools. Such school must be established on petition of 25 persons qualified to attend such school.



## Chapter III.

### PRESENT CONDITIONS.

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Some indication has already been given of the prevalence of evening schools in the chief immigration States, in consequence of the permissive legislation existing on their statute books. It is pertinent to discuss in some detail the specific conditions under which these schools are actually administered.

The following information is based upon questionnaire returns sent in by school administrative officers for the year 1914-15. Inquiry from the Bureau of Education brought in a wealth of valuable information from almost all the more important cities and towns in the country where evening schools for foreigners were successfully maintained. While certain details have necessarily been omitted, the returns were unusually complete, and it is safe to conclude that the most significant characteristics of evening-school management are embodied herein.

#### SUPPORT.

Eleven of the States make grants for evening-school support, to wit: California, Connecticut, Indiana (vocational), Maine, Minnesota, New Jersey, New York, Pennsylvania (industrial), Rhode Island, Washington, Wisconsin.

*California.*—Evening schools are part of the general school system. State aid is based upon average daily attendance in day and evening schools. A day's attendance, two hours, in an evening school is equivalent to a half-day's attendance in a day school. Inasmuch as the attendance unit in 1914-15 was worth \$15 per year per pupil, this amounted to one-half of \$15 for evening-school attendance.

*Connecticut.*—To each town supporting an evening school the State grants \$2.25 per pupil in average attendance, provided the school has been maintained for 75 nights and a report upon such school has been rendered to the board.

*Maine.*—The State reimburses the city to the extent of two-thirds of the amount expended for salaries of teachers, provided certain vocational subjects are also offered in the school. General evening-school instruction is thus supported through a rider on the industrial education act.

*Minnesota.*—State grant is available for evening-school pupils between 5 and 21 years, provided they have attended 40 nights or more. Only 2 out of 10 cities reporting note any State aid, and the amounts received in 1914-15 were \$200 and \$2,154, respectively. Schools are opened, however, to all persons over 10 years of age who for any cause are unable to attend the public day schools.

*New Jersey.*—State grants \$80 per teacher for each one who holds a regular teacher's certificate and who teaches at least 64 evenings of two hours each. There is also a

per capita allowance based upon attendance. An evening attendance is reckoned as a half-day's attendance. Inasmuch as this is apportioned from a lump appropriation, the per capita amount varies from year to year. In case the local board so elects, the State will duplicate the local appropriation for evening classes for foreign-born residents in lieu of the grant above noted, not, however, to exceed \$5,000 annually. Complaint is made that this law really provides aid for only small communities. In large systems it is claimed that the city actually loses money by taking advantage of the law.

*New York.*—There is no specific appropriation for ordinary night schools, although aid is apportioned on the basis of the number of teachers and the number of days they teach under the regular State grant system. For each 180 days or more taught during the year \$100 is allowed, and a night is regarded as half a day. Purely vocational schools are aided on a separate basis.

*Rhode Island.*—State aid is granted on the basis of half the amount expended up to \$1,000; then \$100 for each additional \$500 expended up to \$3,500. The maximum amount in any one case is therefore \$1,000. In 1915 the State had only \$7,000 to distribute, however, so that even this schedule can not always be paid in full.

*Washington.*—Current school funds of State and county are apportioned among the several districts of the State according to the actual number of days' attendance of all pupils. For the purpose of this distribution an evening's attendance in the evening school is counted as a half day. Sessions must be two hours in length and there must be no maximum age limit.

*Wisconsin.*—State reimburses city for one-half actual expenditures for evening schools up to a maximum allotment of \$3,000, provided the schools are maintained for at least eight months and that the work is satisfactory to the State superintendent and the State board of industrial education. No tuition may be charged to residents, and schools are open to all over 14 years of age.

### FEES.

These schedules and most of the following material relate exclusively to conditions in the so-called evening elementary schools, the only classes where the alien is likely to be found. Some communities support evening commercial, high, industrial, or vocational schools, but these are outside the limits of the present inquiry.

Fees in evening schools do not amount to any significant figure, although a few less important places report that their school is entirely dependent upon this source of income. Several of the States have specific regulations against charging fees in the schools as a condition of receiving State grant. With relatively few exceptions, fees where collected do not apply to foreigners learning English, and in these exceptions the amounts are seldom burdensome. Only 77 schools out of 429 report fees charged, and 54 of these are found in the States of Illinois, Iowa, Massachusetts, Michigan, New York, Ohio, and Pennsylvania.

In Illinois these fees range from 50 cents per month to \$2 per month for a six months' term. It is significant to note that in the city charging this higher figure no school was opened in 1915-16 because there was not sufficient enrollment of those willing to pay this fee. Iowa reports fees ranging from \$1 per season to \$5 per

season for those over 21 years of age. Massachusetts cities charge \$1 to \$2 per season, but only for those not subject to the compulsory attendance law. Michigan school fees range from \$1 per season to 50 cents per week for a five months' term. New York charges in six schools from \$1 to \$2. Ohio reports from \$1 per season to 10 cents per lesson for those over 21 years of age, for an 87-lesson term. In Pennsylvania the fees range from 25 cents per season to \$1 per month for a five months' term.

### DEPOSITS.

In 150 communities deposits are required of evening-school pupils, usually as an earnest of good faith, but sometimes in order to guarantee satisfactory deportment, return of books loaned, or regularity of attendance. The fact that in nearly every case reasonable care on the part of the pupils will secure the return of this fee is sufficient warrant for these assertions. The most frequent attendance requirement ranges from two-thirds to four-fifths of the possible attendances, although in some cases it is left under the general statement of "satisfactory attendance and deportment," and one town goes so far as to demand perfect attendance on condition of returning 50 per cent of the deposit.

### SUPERVISION.

Evening-school supervision is far from being upon a satisfactory basis. It should be as much a specialty as the many other phases of school work that are recognized as demanding expert supervision. Most of the work, however, is still under the general direction of the superintendent's office. About one-third (150) of all the cities and towns whose returns are available report a director for evening-school work, although in certain cities this direction is merely an added function laid upon an administrative officer already seriously overburdened.

Existence or nonexistence of the director of evening schools, as found in the returns, is not always a dependable criterion of the work done, for many small communities report such a director and many important places report none. For example, a city of over 250,000 inhabitants, well known for the efficiency of its general supervision, in reporting no director of evening schools, adds that such schools are supervised by the superintendent and his assistant. On the other hand, a little borough of 600 inhabitants in the same State, for which a record happens to be available, reports a director of evening schools whose duties include teaching "reading, writing, and English work." It is not difficult to judge between the efficiency of the actual direction of evening schools in these two communities.

All varieties of duties are specified in the returns, from "merely teaching," "merely providing classes for the schools," "dividing the classes and grading them," to "to cooperate with the government, to advise course of study, and to study the classroom instruction." One of the most suggestive lists of specific duties is thus enumerated by the director of evening schools in Gardner, Mass.:

The principal acts as director. He speaks before the different clubs and societies. He visits the pastors of the foreign churches. He interviews the overseers at the factories. He acts in an advisory capacity at the foreign clubs, aiding in the purchase of books, etc.

A most comprehensive statement comes from Rochester, N. Y., a city which has made great strides in its Americanization movement:

This part of our work is in charge of our Director of Immigrant Education, who prepares the outlines, supervises the teaching, and conducts normal classes for the training of teachers.

From the information at hand, it is evident that effective supervision, even as the term is used in connection with day-school work, is practically negligible in evening schools, if the country as a whole be considered. Relatively few cities are attempting it at all, and the number attacking the problem effectively is insignificant. Yet new problems of organization and method are presenting themselves, and these can not be solved as are those of the day school, largely because the age limits of evening-school pupils cover a wider range than those of the ordinary school. Special training or peculiar skill of adaptation is essential in order to cope with the unusual situations in evening-school work.

#### TEACHERS.

Teachers in evening-school classes are recruited very largely from among the day-school staff. Many superintendents follow this method from choice, and many others from necessity. The former assert that day-school teachers have already proved their efficiency, while the latter accept such teachers reluctantly and only as a last resort, at the same time maintaining that evening-school work interferes with the efficiency of both day and evening schools. It is extremely doubtful whether nine-tenths of the day teachers are able either physically or professionally to carry this double burden, under the prevailing conditions. The conscientious teacher already spends too many evenings in school work, for they provide the only available time for the outside preparation which no good teacher can get along without.

Opinions differ as to the advisability of having the teachers use the language of the pupils, although from the character of the replies received it is evident that most of the judgments are purely ex cathedra, and are not based upon actual experience. Some super-

intendents require this language acquaintance; some refuse to recognize it as a qualification for appointment; and some are indifferent. Ability to speak the language of the alien pupil is of unquestioned value in organizing the classes, and it undoubtedly tends to establish a comfortable personal relationship between teacher and pupils if the pupils feel that they can find a sympathetic listener and helper in the person of the teacher. As far as subsequent classroom use is concerned, however, its advantage is not so obvious, for the prime purpose of the pupil is to learn English. Besides, in a polyglot group of pupils, such language knowledge on the part of the teacher is practically impossible.

The essential advantages of acquaintance with the language of the pupils in organizing the classes may be secured through interpreters, utilizing, for instance, the services of steamship agents, private bankers, and the like, who will be found in almost every immigrant community. This interpreter service should by all means be provided for in some way.

#### CERTIFICATES.

So far as may be judged from available returns, only seven cities have an effective special certificate in vogue for teachers of classes of immigrants: Buffalo, New York, and Rochester, N. Y.; Hoboken and Trenton, N. J.; Cincinnati and Middletown, Ohio. The Rochester requirement runs thus:

Must be graduates of the normal class for teachers of English to foreigners; must be high-school graduates at least; must evince an aptitude for this work; must be familiar with methods and textbooks.

Buffalo, Hoboken, and Trenton require knowledge of the native language of the pupils, but in Buffalo, at least, this language test seems to have fallen into abeyance.

#### QUALIFICATIONS.

Most cities in California, New Jersey, and New York, as well as 15 cities outside these States, demand the possession of the regular teachers' certificates. Five of these cities are found in Massachusetts, while the others are scattered through Illinois, Kentucky, Maine, Michigan, Nebraska, Ohio, Pennsylvania, Utah, Virginia, and Washington.

#### APPOINTMENT.

Teachers are appointed in various ways, almost all methods being represented: By the superintendent, by the board on recommendation of the superintendent or supervisor, by a committee of the board, by the principal, by the director of evening schools, by the supervisor of extension work, or by the board of industrial education (Wisconsin).

## TRAINING.

Little definite training for teachers of foreigners is yet under way, yet the problems encountered in this type of work are certainly as different from those involved in ordinary elementary and secondary teaching as are those between kindergartening and ordinary teaching. For the year 1915-16 a few cities report special training courses. Manifestly, if such courses are not available, it is futile to attempt to impose such training requirements as a qualification for appointment. Albany, Buffalo, and Rochester, N. Y., and Harris Teachers' College, St. Louis, are offering specific courses of training in this field. Wilmerding, Pa., offers a course of training for its teachers and insists that the teachers of foreigners follow it. Pittsburgh, Pa., has a printed course of study for evening schools, and endeavors by frequent conferences to make sure that it is scrupulously followed. Other cities note special meetings or conferences with evening-school teachers: Rockford and East Chicago, Ill., Franklin, Mass., Hibbing, Minn., Garwood, N. J., Hudson Falls and Yonkers, N. Y., Milwaukee and Superior, Wis. Thirty-five cities report lectures on immigrant education problems, but even these reach only a small proportion of the communities that are conducting evening schools for foreigners.

## SALARIES.

In the main, salaries of both teachers and principals in the evening schools are paid on the evening basis, although some teachers are paid by the hour, some by the week, some by the month, and some by the year. The distribution of the various bases upon which teachers' salaries are paid in the 354 places reporting on this point is as follows:

*Basis of payment of teachers' salaries.*

Towns and cities paying by the—	Number.
Hour (or period).....	41
Evening.....	271
Week.....	15
Month.....	31
Year.....	26
Total.....	354

Principals' salaries are usually paid upon the same basis as the teachers', although in 14 cases the basis is different, seven of these representing the principal's salary upon a monthly basis instead of the hourly or daily basis of the teachers'; five representing a corresponding change to the yearly basis; and two a change from the hourly basis prevailing for the teachers to the evening basis. These

<sup>1</sup> Council Grove, Kans.; Westfield, Mass.; Alpena, Mich.; Conneaut, Ohio; Burlington, Vt.

<sup>2</sup> Berkeley and Oakland, Cal.; Bordentown, Ridgewood, and Tenafly, N. J.; Ogden, Utah.

few differences would make the distribution basis for the principals' salaries slightly different from that of the teachers' given just before.

Yearly salaries for teachers range from \$80 in the case of Borden-town and Ridgewood, N. J., to \$500 and \$700 in Oakland, Cal. As in the case of day-school salaries, California heads the list, although the difference is not quite so striking as these figures would seem to indicate when one notes that the evening-school year in the two New Jersey towns is only 64 nights as against 187 in Oakland.

The 33 monthly salaries range from the Casino Technical Night School, a privately controlled school in East Pittsburgh, with \$15 per month for three times per week and a nine months' term, and Roslyn, Wash., with three times per week and a four months' term, to Tampa, Fla., with \$80 per month for three times per week and a six months' term, and Spring Valley, Ill., with \$85 per month for six times per week and a ten months' term.

Below will be found a statement in tabular form of the salaries per evening of teachers and principals in three groups of cities, arranged according to population. No attempt has been made to apply exact statistical treatment to these data, but the form found herein will probably be more useful to the ordinary reader. The extremely wide variations go far to vitiate the value of the averages, but the information is sufficiently detailed to enable the school authorities of a given community to estimate roughly the extent to which the salaries in their community conform to the practice in other cities of the same general class.

*Salaries of teachers and principals according to population groups.<sup>1</sup>*

Population.	Group I. Over 100,000.	Group II. 25,000 to 100,000.	Group III. 10,000 to 25,000.
Teachers' salaries:			
Average.....	\$2.20 (36 cities).	\$1.93 (81 cities).	\$1.85 (82 cities).
Range.....	\$1 to \$3.	\$1 to \$3.50.	\$1 to \$3.50.
Most frequent salary.....	\$2.00 (10 cities).	\$2.00 (25 cities).	\$2.00 (26 cities).
Principals' salaries:			
Average.....	\$3.64 (30 cities).	\$3.17 (60 cities).	\$2.70 (51 cities).
Range.....	\$1.50 to \$5.50.	\$1.50 to \$6.00.	\$1.50 to \$5.00.
Most frequent salary.....	\$4.00 (7 cities).	\$3.00 (17 cities).	\$2.00 (16 cities).

From the foregoing table it is evident that on the whole there is a direct relation between the size of the community and the salaries of teachers and principals. There are, however, twice as many cities in Group II paying \$3 per evening or more as there are in Group I. There are also more cities in Group III in this category than in Group I. In some respects this table does not show actual maximum amounts. Hoboken, N. J., for example, a city of the second group, pays its teachers \$3 or \$4 per evening. For tabulating purposes this appears as \$3.50. Pittsburgh and St. Louis each has a

<sup>1</sup> Statistics in Table 6 represent in some instances later information.

maximum principal's salary of \$7 per evening, but they pay \$4 and \$3.50, respectively, as a minimum. In most of the cities there seems to be a fair relation between the salaries of teachers and principals. Gardner, Mass., presents the most striking salary difference, paying its teachers from 75 cents to \$1.25 per evening (appearing in the table as \$1), but its principal \$5 per evening.

#### NUMBER OF SESSIONS.

Evening-school terms vary widely from Traverse City, Mich., with 20 sessions, 1 per week, to Los Angeles and Oakland, Cal., with 187 sessions, 5 per week. With such a wide range and so much variation, averages mean little. Some of the more significant facts will be apparent from the subjoined table:

*Number of sessions in evening-school term, 1914-15—Range of sessions.*

Population.	Group I. Over 100,000.	Group II. 25,000 to 100,000.	Group III. 10,000 to 25,000.
Cities reporting.....	43	102	113
Average number of sessions.....	83	79	59
Cities reporting.....	Over 90 sessions, 9	Over 90 sessions, 22	Over 90 sessions, 13
	70-90 sessions, 24	60-90 sessions, 59	40-90 sessions, 78
	Less than 70 sessions, 10	Less than 60 sessions, 21	Less than 40 sessions, 22

As might be expected, the larger cities as a rule have the longer evening-school sessions, but certain similarities are apparent in the returns for particular States, largely due to the operation of State laws. In California, for example, the session varies in the main between 140 and 187 evenings, for in that State the evening-school term is practically coextensive with that in the day schools. In Connecticut the number is almost uniformly 75 sessions per year, for that is in pursuance of the State law bearing upon the subject. New Jersey, on the other hand, insists upon a 64-session year as one of the conditions for sharing in the grant for evening schools; hence a certain uniformity in that State. Massachusetts, despite its advanced position on the subject of compulsory attendance for illiterates beyond the compulsory school age, seems to have done nothing to provide for a minimum number of sessions. As a result, with few exceptions, the Massachusetts cities are below the average of their population class, as indicated in the table just above, for the number of sessions of their evening schools.

#### EVENINGS PER WEEK.

The number of sessions per week varies from one to six, with three as the most frequent number. Following will be found the number of cities reporting on this point, classified according to the number of sessions per week.



*Classification of cities according to number of evening-school sessions per week.*

Cities having evening school—	Cities.
One night per week.....	5
Two nights per week.....	54
Three nights per week.....	175
Four nights per week.....	102
Five nights per week.....	38
Six nights per week.....	12
Total.....	376

From this it appears that the distribution of frequency of evening-school sessions per week approximates the curve of normal distribution. It is evident, therefore, that size of city has relatively little effect on this feature.

**SESSION NIGHTS.**

Monday is by all odds the most popular night for evening-school sessions. Of 376 cities reporting on this point, 335 have evening school on Monday. Most of the possible evening combinations are found in the returns. The most frequent combination is Monday, Wednesday, Friday, found in 86 cities, closely followed by Monday, Tuesday, Wednesday, Thursday, which occurs in 80 cities. Below will be found all the combinations chosen by 18 or more cities, with the number of cities choosing each combination:

*Evening combinations, with number of cities adopting each.*

	Cities.
Monday, Wednesday, Friday.....	86
Monday, Tuesday, Wednesday, Thursday.....	80
Monday, Tuesday, Thursday.....	44
Monday, Tuesday, Wednesday, Thursday, Friday.....	38
Tuesday, Thursday.....	23
Monday, Tuesday, Thursday, Friday.....	20
Monday, Wednesday, Thursday.....	18
Scattering.....	67
Total.....	376

**HOURS OF SESSIONS.**

Evening-school sessions are held at various times, almost any combination of hours being obtainable from 6 o'clock in the evening until half past 10. One community, Ely, Minn., which runs its evening schools in shifts in order to meet the needs of the mine workers, has one group from 4 to 6 in the afternoon and the other from 7 to 9 in the evening. From 7.30 to 9.30 is the commonest hour, 146 (out of 428 communities reporting on this point) having evening-

<sup>1</sup> Chillicothe, Ohio, and Spring Valley, Ill. In neither case does any individual have six nights of work. In Spring Valley it is either Monday, Wednesday, and Friday, or Tuesday, Thursday, and Saturday. In Chillicothe each pupil has from one to three nights per week according to subjects elected. In this latter city there is a relatively small alien population

school sessions at that period. This is closely followed by the 7 to 9 period, which is found in 122 cities and towns, and the 7.30 to 9 period, in 58 communities.

Whatever the time of meeting may be, the two-hour session is very common, 323 out of 428 reporting it. If the 74 cities having a session of an hour and a half are eliminated from the others, the residue scattered all along between one and four hours is practically negligible. Three communities report one-hour sessions, and one, Spring Valley, Ill., reports a four-hour session.

### SUMMER SESSIONS.

A few cities report summer sessions for aliens: Los Angeles and Oakland, Cal.; Saginaw (west side), Mich.; Amsterdam, N. Y.; Akron, Ohio (Y. M. C. A.); Cokeburg, Pa. (Ellsworth Collieries Co.).

In Los Angeles, Cal., this was a day session, opening in July and closing in August. Oakland ran its classes in the evening from June 6 to July 28. This gives Oakland practically 52 weeks of evening school, for the summer session bridged the gap between the close of the regular evening-school session, June 2, and the opening of the new school year on July 29.

Amsterdam, N. Y., likewise reports a day session for aliens beginning July 6 and continuing for six weeks. Akron, Ohio, Y. M. C. A., with its summer school for aliens, also rounds out a 52-week year for evening work, with four sessions per week. In Cokeburg, Pa., the evening classes during the summer were classes in sewing for married foreign women.

Lack of funds prevented New York City from conducting its evening classes in English for foreigners in the summer of 1915. These classes had been very successful in 1913-14, the attendance record in that year having been 83.6 per cent, as opposed to 71.7 per cent for the regular winter session.

Summer sessions for foreigners seem especially desirable, for the summer months are the period of greatest immigration. With the short evening-school term (frequently closing in March or even earlier), the first weeks of the foreigner's sojourn in the new land pass by, and a certain tactical advantage is lost. Before fall, the novelty has worn off, the early enthusiasm has been spent, language adjustments have been made, and it is more difficult to bring before the foreigner the necessity of getting into touch with our language and our institutions.

### OTHER SESSIONS.

Racine, Wis., reports a continuation school in the afternoons during the regular school year, which was attended by unemployed and night workers. Dunkirk, N. Y., conducted a special day session

for aliens, which was held during the regular day-school hours in the high-school building. This class was composed of a number of foreigners over the age of 20 and up to 50, who were not working and who were glad to seize this opportunity of furthering their knowledge of English. The class continued during a dull industrial period (Feb. 1 to Apr. 1) as an offshoot of the regular evening classes.

#### PUBLICITY METHODS.

Evening-school authorities, taking the country as a whole, do not yet seem alive to the necessity of bringing their schools to the attention of the people whom they ought to reach. Too frequently a hit-or-miss plan is followed, if indeed publicity is not neglected altogether. "We only advertise through the public press," which fairly typifies the attitude characteristic of one of the more important immigration States, is unfortunately more than many a community attempts to do. Evening classes for foreigners are chiefly intended to teach English, yet too frequently the only notices of such classes are published exclusively in English. What is the chance that the non-English-speaking foreigner will profit by such a notice, whether on bulletin board or in the public press? Where no foreign-language paper is issued in the town, it is possible to have notices in the foreign tongues inserted in the American newspaper (Ithaca, N. Y.). Too little use is made of the foreign-language press.

Many cities and towns report that they are using posters in the foreign language to advertise their schools. From internal evidence, it is apparent that most of these places refer to the use of the "America First," poster which was sent out for the first time in the fall of 1915 by the Bureau of Education. A few communities, however, note the use of such foreign-language posters before this present year (notably Fall River, Fitchburg, and New Bedford, Mass., Jersey City, N. J.). Posters are placed in "stores, meat markets, pool rooms, saloons, and factories" (Madison, Wis.), on electric-light poles (Milwaukee, Wis.), and in street cars (Jackson, Mich.).

Cooperating committees of foreigners are called upon in a few instances to encourage evening-school attendance, but this means of publicity seems on the whole to have been neglected. Neighborhood centers in public school buildings are surprisingly few. One superintendent, who fortunately is not typical, expresses himself very forcibly on this point: "We do not encourage foreigners' societies to meet in school buildings. Our school buildings are for Americans only."

Children in the public schools are frequently used as messengers to carry invitations to parents and other adult members of their

households, Chicago having distributed 400,000 handbills by this means in 1914-15. Church cooperation is utilized to some extent. In Trenton, N. J., for instance:

Announcements are made in all the churches and Sunday schools, being especially emphasized in Catholic churches by request of the bishop. Announcements are also made in day public and parochial schools. Circular letters are sent to employers, labor organizations, foreigners' clubs and societies, and civic clubs.

In Dunkirk, N. Y., "notices are put in all the pay rolls in the city." Buffalo, N. Y., employs a home visitor, while certain Pennsylvania towns (Cokeburg, East Pittsburgh, and Ford City) have a personal house-to-house canvass made by visitors who speak the language of the foreigners.

So far as is known seven cities and towns in the country (Boston and Waltham, Mass., Providence and Warren, R. I., and Manitowoc, Superior, and Two Rivers, Wis.) utilize the moving-picture theaters to show slides announcing their evening schools.

In Boston—

posters are placed on the dashboards of electric cars. Motion-picture establishments announce the opening of evening schools, local and foreign newspapers are used in gaining publicity, individual principals circulate notices and handbills printed in the various languages, and an attempt is made to secure the cooperation of all existing agencies that are interested in the training of immigrants for citizenship.

The extensive and successful publicity campaigns carried on in Detroit, Mich., and Syracuse, N. Y., are significant of what can be done.

Detroit is a typical immigration city. Attracted by the lure of heavy demands for labor and good wages, foreign workmen had flocked there by the scores of thousands. Business men were quick to recognize the need for Americanizing these people, and they wisely turned to the evening schools as the means for accomplishing this purpose. Backed by the chamber of commerce, a city-wide campaign was opened, with cooperation of all available forces as the watchword. Employers of labor, churches, priests and pastors, municipal departments, social and philanthropic organizations, employment agencies, clubs, neighboring educational authorities, interested individuals, the foreign-language and the English press, all pulled together. As a first result, an increase of 153 per cent in the registration of evening schools was reported. It is yet too early to express an opinion as to the ultimate effects of this campaign. Such initial success, however, is a harbinger of greater effectiveness for the future.<sup>1</sup>

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<sup>1</sup> "Americanizing a City," a pamphlet prepared for the Bureau of Education for general distribution, contains an account of the Detroit campaign.

**COOPERATION WITH NATURALIZATION AUTHORITIES.**

Much work remains to be done in urging the schools to greater efforts in reaching applicants for naturalization and in gathering them into the evening school. A few places send the regular truant officer, armed with the Government blanks, to the homes of applicants for naturalization. These applicants are thus urged through personal solicitation to attend the night school. Ninety days, however, is far too short a time to accomplish much with either English or citizenship instruction. Some means must be devised of catching these prospective citizens earlier. School authorities are certainly derelict in looking up even these applicants for citizenship. Only 213 cities out of 438 reporting on this point make any definite effort to get into touch with the applicants for naturalization, and these returns cover practically all the principal cities of the country which have evening schools for foreigners. Some (132) state definitely that they do nothing along this line, while the others (93) fail to report. It is probably safe to assume that they, too, are doing nothing.

Despite the efforts of the Federal Government to bring about a closer cooperation between the naturalization courts and the schools, results are still far from satisfactory. Fewer than 20 per cent of these 438 cities report any recognition accorded English and civics classes by naturalization clerks. Ignorance on the part of school authorities with reference to the practice of naturalization clerks in recognizing school work is somewhat striking. Some confess frankly that they have no knowledge on the subject, while others disregard the question, the inference naturally being that they are not in touch with this court procedure.

Los Angeles, on the other hand, has developed a unique cooperation with the naturalization courts. Every applicant who attends a citizenship class and meets a certain scholastic standard is given a certificate which is recognized by the naturalization court. Periodically a formal welcome is given to the new citizens under the auspices of the courts, with the cooperation of the board of education and civic and patriotic organizations. With the judge of the court as presiding officer, each naturalization applicant is called up individually and is publicly awarded his certificate of citizenship.

There is need, however, for wider cooperation between the courts of naturalization and the schools, for the schools can be of invaluable assistance to the court officials if an effective plan of cooperation can only be evolved.

The citizenship reception in Philadelphia, May, 1915, at which the newly naturalized citizens were addressed by President Wilson, is still fresh in people's minds. Other cities have likewise done their part in holding similar gatherings to welcome the new citizens, and in giving them some realization of the solemnity of the step they are taking.

## STATISTICAL TABLES.

TABLE 1.—*Foreign-born white population, by States, with per cent of total white population, census of 1910.*

States.	Number.	Per cent.	States.	Number.	Per cent.
United States.....	13,345,545	16.3	South Dakota.....	100,628	17.8
New York.....	2,729,272	30.4	New Hampshire.....	96,558	22.5
Pennsylvania.....	1,436,719	19.3	Montana.....	91,644	25.4
Illinois.....	1,202,560	21.8	Utah.....	63,393	17.3
Massachusetts.....	1,051,050	31.6	West Virginia.....	57,072	4.9
New Jersey.....	658,188	26.9	Louisiana.....	51,782	5.5
Ohio.....	597,215	12.8	Vermont.....	49,861	14.1
Michigan.....	595,521	21.4	Arizona.....	46,824	27.3
Minnesota.....	513,010	26.4	Idaho.....	40,427	12.7
California.....	517,250	22.9	Oklahoma.....	40,084	2.8
Wisconsin.....	512,569	22.1	Kentucky.....	40,053	2.0
Connecticut.....	328,759	29.9	Florida.....	33,842	7.6
Iowa.....	273,484	12.4	Wyoming.....	27,118	19.3
Washington.....	211,197	21.7	Virginia.....	26,628	1.9
Texas.....	239,984	7.5	District of Columbia.....	24,351	10.3
Missouri.....	228,896	7.3	New Mexico.....	22,664	7.4
Rhode Island.....	178,025	33.4	Tennessee.....	18,956	1.5
Nebraska.....	175,865	14.9	Nevada.....	18,459	1.1
Indiana.....	159,322	6.0	Delaware.....	17,999	24.2
North Dakota.....	156,158	27.4	Arkansas.....	17,420	10.2
Kansas.....	155,190	8.3	Georgia.....	16,909	1.5
Colorado.....	126,851	16.2	Mississippi.....	15,072	1.1
Maine.....	110,133	14.9	South Carolina.....	9,389	1.2
Maryland.....	101,174	9.8	North Carolina.....	6,054	.9
Oregon.....	103,001	15.7		5,942	.4

TABLE 2.—*Illiteracy among foreign-born whites, with per cent of total foreign-born white population, census of 1910.*

[Figures for 10 years of age and over.]

States.	Number.	Per cent.	States.	Number.	Per cent.
United States.....	1,650,361	12.7	Louisiana.....	12,085	24.0
New York.....	362,065	13.7	Maryland.....	12,047	11.9
Pennsylvania.....	279,668	20.1	Washington.....	11,233	4.8
Massachusetts.....	129,412	12.7	North Dakota.....	9,474	6.3
Illinois.....	117,571	10.1	Montana.....	8,445	9.4
New Jersey.....	93,551	14.7	New Mexico.....	6,580	31.0
Texas.....	67,295	30.0	Vermont.....	6,239	13.1
Ohio.....	66,887	11.5	Oregon.....	6,120	6.1
Michigan.....	54,113	9.3	South Dakota.....	4,896	5.0
California.....	50,292	10.0	Oklahoma.....	3,828	9.8
Connecticut.....	49,202	15.4	Utah.....	3,036	5.9
Wisconsin.....	43,662	8.7	Florida.....	3,390	10.5
Minnesota.....	40,627	7.6	Delaware.....	3,359	19.8
Rhode Island.....	29,781	17.3	Kentucky.....	3,300	8.3
Virginia.....	25,639	9.2	Idaho.....	2,742	6.9
Missouri.....	22,631	10.1	Wyoming.....	2,548	9.7
Indiana.....	18,300	11.7	Alabama.....	2,063	11.3
Iowa.....	16,494	6.3	District of Columbia.....	1,944	8.2
Maine.....	14,394	13.7	Tennessee.....	1,488	8.3
Colorado.....	13,897	11.3	Arkansas.....	1,466	8.9
Kansas.....	13,787	10.5	Mississippi.....	1,364	15.1
Arizona.....	13,758	31.5	Nevada.....	1,344	7.6
New Hampshire.....	13,485	14.5	Georgia.....	875	6.0
West Virginia.....	13,075	23.9	North Carolina.....	477	8.3
Nebraska.....	12,264	7.1	South Carolina.....	399	6.8

TABLE 3.—*Inability to speak English among foreign-born whites, with per cent of total foreign-born white population, census of 1910.*

[Figures for 10 years of age and over.]

States.	Number.	Per cent.	States.	Number.	Per cent.
United States.....	2,953,011	22.8	Maine.....	19,589	18.6
New York.....	597,012	22.7	South Dakota.....	18,486	18.8
Pennsylvania.....	466,825	33.6	Maryland.....	17,544	17.4
Illinois.....	266,557	22.8	Florida.....	14,049	43.7
Massachusetts.....	171,014	16.8	Montana.....	13,718	15.3
Ohio.....	163,722	28.3	Oregon.....	13,531	13.4
New Jersey.....	153,861	24.2	New Mexico.....	11,776	55.5
Texas.....	125,785	56.0	Louisiana.....	11,547	22.9
Wisconsin.....	120,685	24.0	Vermont.....	8,342	17.5
Michigan.....	102,286	17.6	Utah.....	8,129	13.1
Minnesota.....	89,850	16.8	Oklahoma.....	7,975	20.4
California.....	74,706	14.8	Wyoming.....	5,970	22.6
Connecticut.....	64,201	20.1	Idaho.....	5,805	14.7
Indiana.....	40,731	26.2	Delaware.....	4,824	28.5
Missouri.....	37,747	16.9	Virginia.....	3,983	15.5
Iowa.....	37,169	13.8	Kentucky.....	3,816	9.6
Rhode Island.....	36,961	21.5	Nevada.....	3,557	20.0
North Dakota.....	33,491	22.3	Alabama.....	3,028	16.6
Nebraska.....	29,519	17.1	Arkansas.....	2,741	16.7
Kansas.....	28,358	21.5	Tennessee.....	1,648	9.2
West Virginia.....	27,461	50.3	Mississippi.....	1,491	16.5
New Hampshire.....	26,788	28.8	District of Columbia.....	1,349	5.7
Washington.....	25,568	10.9	Georgia.....	853	6.5
Arizona.....	25,072	57.3	North Carolina.....	779	13.6
Colorado.....	22,610	18.4	South Carolina.....	447	7.6

TABLE 4.—*School attendance among foreign-born whites, by age groups, census 1910.*

States.	Total number.	10 years of age and over.	15 years of age and over.	21 years of age and over.
United States.....	651,806	446,745	128,263	35,614
New York.....	187,034	131,541	43,492	9,603
Pennsylvania.....	69,257	45,640	10,804	2,894
Massachusetts.....	57,499	40,404	14,117	2,976
Illinois.....	50,451	32,402	9,153	3,463
New Jersey.....	35,001	23,016	6,036	1,766
Ohio.....	26,412	16,987	4,342	1,184
Michigan.....	25,281	17,374	5,328	1,357
California.....	19,203	13,406	4,716	1,146
Connecticut.....	17,593	11,536	3,117	600
Minnesota.....	17,469	12,574	4,948	1,646
Wisconsin.....	15,899	10,397	2,934	1,039
Rhode Island.....	10,285	7,183	1,746	479
Texas.....	10,176	7,714	2,200	413
Washington.....	9,672	6,983	2,348	564
North Dakota.....	9,494	7,326	2,563	535
Missouri.....	7,834	5,123	1,542	567
Maine.....	7,165	4,871	1,409	240
Iowa.....	6,755	4,573	1,735	671
Colorado.....	5,927	4,060	1,261	305
Nebraska.....	5,528	3,780	1,419	509
New Hampshire.....	5,602	3,827	926	150
Indiana.....	5,210	3,365	1,173	537
Maryland.....	5,015	3,323	1,021	439
Kansas.....	4,538	3,168	1,066	288
South Dakota.....	3,644	2,766	1,105	300
Oregon.....	3,416	2,407	920	242
Vermont.....	3,390	2,248	664	70
Arizona.....	2,783	1,886	423	37
Montana.....	2,716	1,906	697	161
Utah.....	2,520	1,796	629	132
West Virginia.....	2,259	1,448	360	80
Florida.....	1,838	1,202	346	91
Louisiana.....	1,718	1,201	376	84
Oklahoma.....	1,554	1,152	424	101
Virginia.....	1,334	938	314	73
District of Columbia.....	1,195	886	397	161
New Mexico.....	1,166	772	243	26
Idaho.....	1,128	819	323	81
Alabama.....	897	622	187	44

TABLE 4.—*School attendance among foreign-born whites, by age groups, census 1910—Continued.*

States.	Total number.	10 years of age and over.	15 years of age and over.	21 years of age and over.
Kentucky.....	896	631	274	121
Tennessee.....	839	622	236	51
Wyoming.....	815	538	166	47
Georgia.....	721	536	206	55
Delaware.....	627	417	88	28
Arkansas.....	539	392	162	43
Mississippi.....	371	265	98	26
North Carolina.....	302	232	88	18
Nevada.....	283	197	88	24
South Carolina.....	222	163	54	13

TABLE 5.—*Foreign-born whites: Number unable to speak English, illiterate, and attending school, by age groups for the United States as a whole, census 1910.*

Age limits.	Unable to speak English.	Illiterate.	Attending school.
10 years and over.....	2,953,011	1,650,361	446,745
15 years and over.....	2,896,606	1,667,877	138,253
21 years and over.....	2,585,612	1,546,535	35,614

The large majority of those unable to speak English and the illiterate are found in the "over 21 years of age" group. The number in the same group attending school is almost insignificant.



TABLE 6.—*Statistics relating to evening schools, 1914-15.*  
 [NOTE.—Y indicates Yes; N indicates No; ..... indicate No data.]

Cities and towns.	Census of 1910.		Evening schools.			Sessions.			Fees. <sup>1</sup>	Depos- its.	Salaries (per evening unless otherwise indicated).			Enroll- ment of foreign pupils.
	Popula- tion.	Foreign- born whites.	Public.	Public, with classes for for- eigners.	Private, with classes for for- eigners.	Num- ber of ses- sions.	Evenings of week.	Hours.			Teachers.	Principals.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
ALABAMA.														
Birmingham.....	132,685	3,160	Y	Y	Y	72	M, W, F	7.30-9.30	N	Y	\$1.00	\$1.25	90	
Mobile.....	51,521	1,297	N	N	Y	60	M, W, F	7.30-9.30	Y		\$20.00		9	
Montgomery.....	38,136	420	N	N	Y	80-90	M, W, F	{ 7.30-10.00 8.00-10.30 }	N	N	0		18	
ARIZONA.														
Globe.....	7,083	1,949	Y											
ARKANSAS.														
Fort Smith.....	23,975	941	Y											
CALIFORNIA.														
Alameda.....	23,383	5,555	Y	Y		150	M, T, W, Th	7.00-9.00	N	N	\$40.00-50.00	\$600.00	12	
Berkeley.....	40,434	7,633	Y	Y		159	M, T, W, Th	7.30-9.30	N	N	\$50.00	\$500.00-600.00	100	
Fresno.....	24,892	6,445	Y	Y		142	M, T, W, Th	7.00-9.00	N	N	2.00	2.50	200	
Los Angeles.....	319,198	60,884	Y	Y		187	M, T, W, Th, F	7.00-9.00	N	N	2.00-3.00	\$60.00-100.00	400	
Oakland.....	180,174	36,822	Y	Y		187	M, T, W, Th, F	7.15-9.15	N	N	\$50.00	\$700.00	751	
Pomona.....	10,207	882	Y	Y		42	M, T, W, Th	7.00-9.15	N	N	3.00		32	
Redlands.....	10,449	1,346	Y	Y										
Sacramento.....	44,696	8,865	Y	Y		178	M, T, W, Th, F	7.00-9.00	N	N	\$60.00	\$1,000.00	57	
San Francisco.....	416,912	130,874	Y	Y		192	M, T, W, Th, F	7.15-9.15	N	N	\$50.00	\$75.00	600	
San Jose.....	28,946	6,817	Y	Y		185	M, T, W, Th, F	7.00-9.00	N	N	\$50.00	\$60.00	90	
San Leandro.....	3,471	1,108	Y	Y		80	M, T, W, Th, F	7.00-9.00	N	N	\$30.00		168	
San Rafael.....	5,934	1,747	Y	Y		124	M, T, W, Th	7.00-9.00	N	N	0		43	
Santa Ana.....	8,429	854	Y	Y		72			N	N	2.50		60	
Santa Monica.....	7,847	1,243	Y	N		62	M, W	7.15-9.15	N	N		3.00		

COLORADO.									
Denver.....	213,331	38,941	Y	Y	94	M, T, W, Th M, W, Th, F M, T, W, Th, F	7.30-9.15 7.15-9.30 7.00-8.30	N Y N	* Y N
Lamar.....	2,977	203	Y	Y	160				2.50 * 60.00
Pueblo.....	44,395	8,331	Y	Y					
CONNECTICUT.									
Ansonia.....	15,152	5,711	Y	Y	75	M, T, Th M, W, F	7.30-9.30	* Y	2.00
Avon.....	1,337		Y	Y	32	M, T, Th M, W, F	7.00-9.00	N	2.00
Bridgport.....	102,064	38,180	Y	Y	75	M, T, Th, F M, W, Th, F	7.00-9.00 7.15-9.15	N	2.00
Bristol.....	13,502	3,952	Y	Y	75	M, T, Th, F M, W, Th, F	7.15-9.15	N	2.00
Danbury.....	23,502	5,529	Y	Y	75	M, T, W, Th	7.15-9.15	N	2.00
Enfield.....	9,719	3,787	Y	Y	75	M, T, W, Th		N	
Greenwich.....	16,463	5,080	Y	Y					
Hartford.....	98,915	31,243	Y	Y	75	M, T, W, Th M, T, Th, F M, T, W, Th	7.30-9.30 7.30-9.30 7.30-9.10	N N N	2.50-3.00 2.00 up. 1.50-2.00
Meriden.....	6,545	1,733	Y	Y	75	M, T, W, Th	7.30-9.00	N	2.75
Middletown.....	32,066	9,390	Y	Y	75	M, T, W, Th	7.30-9.10	N	1.00
Naugatuck.....	11,851	3,800	Y	Y	75	M, T, Th, F M, W, Th, F	7.30-9.15	N	2.00
New Britain.....	12,722	4,233	Y	Y	75	M, T, W, F	7.30-9.30	N	1.25
New Britain.....	43,916	18,015	Y	Y	75	M, T, W, Th, F	7.00-9.00	N	3.00
New Haven.....	133,605	42,784	Y	Y	75	M, T, W, Th, F	7.00-9.00	N	2.50
New London.....	19,659	4,561	Y	Y	40	M, T, W, Th	7.00-9.30	N	1.75-2.50
New Milford.....	5,010	852	Y	Y	75	M, T, W, Th	7.30-9.30	N	1.25-2.00
Norwalk.....	24,211	5,686	Y	Y	75	M, T, W, Th, F M, W, F	7.00-9.00 7.30-9.00	N	1.50
Norwalk.....	28,219	8,405	Y	Y	24	M, W, F	7.30-9.00	N	1.50
Painville.....	2,852	523	Y	Y	75	M, W, F	7.30-9.00	N	2.00
Rockville.....	7,977	2,764	Y	Y	75	M, W, F	7.30-9.00	N	5.00
Southington.....	6,516	1,724	Y	Y	75	M, T, Th, F M, T, W, Th, F	7.30-9.30 7.00-9.00	N	1.00-2.00
South Manchester.....	28,836	8,872	Y	Y	80	M, T, Th, F	7.00-9.00	N	1.50
Stamford.....	16,840	6,064	Y	Y	75	M, T, Th, F	7.00-9.00	N	3.00
Torrington.....	3,302	777	Y	Y	75	M, T, W, Th	7.15-9.15	N	2.00
Wallingford.....	11,155	3,302	Y	Y	53	M, T, Th, F	7.15-9.15	N	2.00-2.75
Waterbury.....	73,141	25,468	Y	Y	30	M, T, Th, W	7.30-9.30	N	0
Winsted.....	7,754	1,553	Y	Y					
DELAWARE.									
Wilmington.....	87,411	13,678	Y	* Y	60	M, W, F	7.00-9.00	N	1.25
DISTRICT OF COLUMBIA.									
Washington.....	331,069	24,351	Y	Y	63	M, W, F	7.30-9.30	N	2.00
FLORIDA.									
Jacksonville.....	57,699	2,438	Y	Y	72	M, T, W	7.00-9.00	N	* 60.00-90.00
Tampa.....	37,782	9,866	Y	Y					* 150.00

1 No account has been taken of the rather prevalent custom of charging fees to nonresidents.  
 \* Per year.  
 \* Per month.  
 \* Under 21 years of age.  
 \* Per week.  
 \* Borough in the town of Winchester.  
 \* District in the town of Manchester.

TABLE 6.—*Statistics relating to evening schools, 1914-15—Continued.*  
 [Note.—Y indicates Yes; N indicates No; ..... indicate No data.]

Cities and towns.	Census of 1910.		Evening schools.			Sessions.			Fees.	Depos-its.	Salaries (per evening unless otherwise indicated).		Enroll-ment of foreign pupils.
	Popula-tion.	Foreign-born whites.	Public.	Public, with classes for for-eigners.	Private, with classes for for-eigners.	Num-ber of ses-sions.	Evenings of week.	Hours.			Teachers.	Principal.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
GEORGIA.													
Athens.....	14,913	183	Y	N	.....	177	M, T, W, Th, F	7.00-9.00	N	N	\$1.00	\$1.50	6
Atlanta.....	154,839	4,410	Y	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dublin.....	5,759	38	Y	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
IDAHO.													
Boise.....	17,358	2,283	Y	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
ILLINOIS.													
Aurora.....	29,807	6,702	Y	Y	.....	40	M, Th	7.30-9.00	N	Y	1.50	.....	85
Blue Island.....	8,043	1,903	Y	Y	.....	124	M, T, W, Th, F	7.00-9.00	N	Y	1.20	1.80.00	101
Canton.....	10,453	1,122	Y	N	Y	124	M, W, F	7.30-9.00	N	Y	1.00	.....	44
Chicago.....	2,185,283	781,217	Y	Y	Y	77	M, T, W, Th	{ 7.15-9.15 7.30-9.30 7.30-9.30	N	Y	2.00-2.80	5.00	17,645
Cicero.....	14,557	6,072	Y	Y	.....	88	.....	7.30-9.30	N	N	2.80	.....	363
De Kalb.....	8,102	2,584	Y	Y	.....	143	M, T, W, Th, F	7.00-9.00	Y	N	1.35.00	.....	166
East St. Louis.....	58,547	9,400	Y	Y	.....	25	.....	7.30-9.30	N	.....	.....	.....	13
Elgin.....	25,976	5,661	Y	N	Y	.....	.....	.....	.....	.....	.....	.....	.....
Evanston.....	24,978	5,700	Y	Y	.....	.....	.....	.....	.....	.....	.....	.....	.....
Geneva.....	2,451	.....	Y	Y	.....	24	T, Th	7.00-9.00	Y	.....	1.00	.....	30
Granite City.....	9,903	2,185	Y	Y	.....	90	M, T, W, Th, F	7.30-9.30	Y	.....	.....	.....	33
Harvey.....	7,227	2,203	Y	Y	.....	36	M, W, F	7.00-9.00	Y	.....	.....	1.80.00	.....
Joliet.....	34,670	10,441	Y	Y	.....	98	M, T, W, Th, F	7.00-9.00	N	N	2.00	.....	206
Kewanee.....	9,307	2,186	Y	Y	.....	59	M, W, F	7.15-9.30	N	.....	.....	.....	42
La Salle.....	11,537	3,442	Y	Y	.....	50	M, T, Th	7.30-9.30	Y	.....	1.30.00	3.00	224
Moline.....	24,196	7,211	Y	Y	.....	.....	.....	.....	.....	.....	.....	.....	.....
Murphysboro.....	7,455	.....	Y	Y	.....	36	M, T, W, Th, F	7.00-9.00	N	.....	2.50	.....	.....
Oak Park.....	19,444	3,325	Y	Y	.....	100	M, T, W, Th, F	7.00-9.00	N	Y	1.40.00	3.00	100
Peoria.....	66,950	8,810	Y	Y	.....	52	M, T, W, Th, F	7.00-9.00	Y	Y	1.60.00	2.50	461
Rockford.....	45,401	13,828	Y	Y	.....	.....	.....	.....	.....	.....	.....	.....	.....



TABLE 6.—*Statistics relating to evening schools, 1914-15—Continued.*

[NOTE.—Y indicates Yes; N indicates No; ..... indicate No data.]

Cities and towns.	Census of 1910.		Evening schools.			Sessions.			Fees.	Depos- its.	Salaries (per evening unless otherwise indicated).		Enroll- ment of foreign pupils.
	Popula- tion.	Foreign- born whites.	Public.	Public classes for for- eigners.	Private, with classes for for- eigners.	Num- ber of ses- sions.	Evenings of week.	Hours.			Teachers.	Principals.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
KENTUCKY.													
Covington.....	53,270	3,933											
Dayton.....	6,979	564											
Lexington.....	35,099	936	Y	N		96	M, W, F	7.30-9.30	N				
Louisville.....	223,928	17,436	Y	Y		36	M, W, Th	7.00-9.00	1 Y		\$1.50	\$2.00	15
Maysville.....	6,141	139	Y	Y		111	M, T, W, Th, F	7.30-9.30	Y		1.50	2.50	
Owensboro.....	7,753	143	Y	N	N	24							
LOUISIANA.													
La Fayette.....	6,392	187	Y	N		70	M, W, F	7.30-9.30	N		2.75	3.25	142
New Orleans.....	339,075	27,686	Y	Y									
MAINE.													
Auburn.....	15,064	2,574	Y	Y		39	M, W, F	7.00-8.45	Y		1.50-2.00	2.00	167
Bath.....	9,396	1,315	Y	Y		100	M, T, W, Th	7.15-9.15	N		2.00	4.00	12
Hallowell.....	2,864	309	Y	Y		18	M, T, W, Th	7.00-9.00	N		1.00	1.25	32
Lewiston.....	26,247	9,418	Y	Y		80	M, T, Th, F	7.10-9.00	N		1.25-2.00	2.00-2.50	346
Rumford.....	58,571	12,078	Y	Y		84	M, T, W, Th	7.15-9.15	N	Y	2.00-3.00	3.00	
Rumford.....	5,777	2,634	Y	Y		60	M, T, W, Th	7.00-8.30	Y		1.00-1.50	1.50	92
Skowhegan.....	5,341	733	Y	Y		72	M, W, F	7.00-9.00	N		1.50	2.00	14
Waterville.....	11,458	2,688	Y	Y		100	M, T, Th, F	7.15-8.30	N	Y	1.00		70
MARYLAND.													
Baltimore.....	558,465	77,043	Y	Y		65		7.30-9.30	N		2.00	3.00	2,103
MASSACHUSETTS.													
Adams.....	13,026	5,097	Y	Y		42	M, T, Th	7.15-9.00	N		1.50	2.00	178
Attleboro.....	16,215	4,453	Y	Y		42	M, T, Th	7.30-9.15	1 Y		1.50	2.50	127

Belmont	15,542	4,161	7,688	18,030	24,722	31,715	37,923	44,010	50,100	56,190	62,280	68,370	74,460	80,550	86,640	92,730
Beverly	15,542	4,161	7,688	18,030	24,722	31,715	37,923	44,010	50,100	56,190	62,280	68,370	74,460	80,550	86,640	92,730
Boston	670,585	7,061	15,425	27,793	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Bridgewater	7,688	15,425	27,793	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549	109,862
Brookline	50,873	15,425	27,793	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549	109,862
Cambridge	104,702	15,425	27,793	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549	109,862
Chelsea	32,152	15,425	27,793	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549	109,862
Dorchester	35,401	15,425	27,793	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549	109,862
Dorchester	35,401	15,425	27,793	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549	109,862
Fall River	112,404	60,854	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Fitchburg	37,820	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549	109,862
Franklin	32,948	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549	109,862
Gloucester	14,000	6,412	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Haverhill	21,998	7,484	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Holyoke	10,127	1,018	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Lowell	47,280	23,238	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Malden	6,713	1,790	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Methuen	85,392	41,319	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Methuen	17,580	4,875	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Methuen	106,204	43,467	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Methuen	59,136	27,344	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Methuen	44,401	13,430	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Methuen	24,520	8,126	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Methuen	11,448	4,331	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Methuen	14,035	4,331	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Methuen	9,806	1,907	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Methuen	9,806	1,907	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Methuen	3,026	1,254	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Methuen	90,659	42,625	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Methuen	14,019	3,007	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Methuen	30,848	11,191	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Methuen	22,019	6,040	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Methuen	10,431	4,880	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Methuen	9,367	2,490	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Methuen	8,807	3,360	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Methuen	8,014	2,555	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Methuen	8,010	3,074	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Methuen	13,271	6,311	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Methuen	12,121	6,744	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549
Methuen	12,141	3,722	13,011	27,890	34,106	40,419	46,732	53,045	59,358	65,671	71,984	78,297	84,610	90,923	97,236	103,549

• Per hour or period.

**1'er year.**

**For certain pupils.**

TABLE 6.—*Statistics relating to evening schools, 1914-15—Continued.*

[NOTE.—Y indicates Yes; N indicates No; ..... indicate No data.]

Cities and towns.	Census of 1910.		Evening schools.			Sessions.			Fees.	Depos- its.	Salaries (per evening unless otherwise indicated).		Enroll- ment of foreign pupils.
	Popu- lation.	Foreign- born whites.	Public.	Public with classes for for- eigners.	Private, with classes for for- eigners.	Num- ber of ses- sions.	Evenings of week.	Hours.			Teachers.	Principals.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
<b>KENTUCKY.</b>													
Covington.....	53,270	3,823	Y	N	.....	96	M, W, F	7.30-9.30	N	.....	.....	.....	.....
Dayton.....	6,979	364	Y	N	.....	36	M, W, F	7.00-9.00	.....	.....	.....	.....	.....
Lexington.....	35,069	836	Y	Y	.....	.....	M, W, Th	7.30-9.30	Y	.....	\$1.50	\$2.00	15
Louisville.....	223,925	17,436	Y	Y	.....	111	M, T, W, Th, F	7.30-9.30	Y	.....	1.50	2.50	.....
Maysville.....	6,141	139	Y	N	.....	.....	.....	.....	.....	.....	.....	.....	.....
Owensboro.....	7,753	143	Y	N	N	24	.....	.....	.....	.....	.....	.....	.....
<b>LOUISIANA.</b>													
La Fayette.....	6,392	187	Y	N	.....	70	M, W, F	7.30-9.30	N	.....	2.75	3.25	143
New Orleans.....	339,075	27,686	Y	Y	.....	.....	.....	.....	.....	.....	.....	.....	.....
<b>MAINE.</b>													
Auburn.....	15,064	2,574	Y	Y	.....	39	M, W, F	7.00-8.45	Y	.....	1.50-2.00	2.00	167
Bath.....	9,396	1,315	Y	Y	.....	100	M, T, W, Th	7.15-9.15	N	.....	2.00	4.00	12
Hallowell.....	2,864	309	Y	Y	.....	18	M, W, Th, F	7.00-9.00	N	.....	1.00	1.25	32
Lewiston.....	26,247	9,418	Y	Y	.....	80	M, T, Th, F	7.15-9.15	N	.....	1.25-2.00	2.00-2.50	346
Portland.....	58,571	12,078	Y	Y	.....	84	M, T, W, Th	7.15-9.15	N	.....	2.00-3.00	3.00	.....
Rumford.....	6,777	2,034	Y	Y	.....	60	M, T, W, Th	7.00-8.30	Y	.....	1.00-1.50	1.50	92
Skowhegan.....	5,341	783	Y	Y	.....	72	M, W, F	7.00-9.00	N	.....	1.50	2.00	14
Waterville.....	11,453	2,688	Y	Y	.....	100	M, T, Th, F	7.15-8.30	N	.....	1.00	.....	70
<b>MARYLAND.</b>													
Baltimore.....	558,485	77,043	Y	Y	.....	65	.....	7.30-9.30	N	.....	2.00	3.00	2,103
<b>MASSACHUSETTS.</b>													
Adams.....	13,026	5,097	Y	Y	.....	42	M, T, Th	7.15-9.00	N	.....	1.50	2.00	176
Attleboro.....	16,215	4,453	Y	Y	.....	42	M, T, Th	7.30-9.15	Y	.....	1.50	2.50	137

Belmont	5,542	1,572	Y	Y	Y	63	M, W, F	7.30-9.30	N	N	N	Y	2.00	4.00	32
Beverly	13,550	4,061	Y	Y	Y	73	M, T, W, Th	7.15-9.15	Y	Y	Y	Y	2.00	4.00	227
Boston	670,722	240,722	Y	Y	Y	88	M, T, W, Th	7.30-9.30	Y	Y	Y	Y	2.00	4.00	8,500
Bridgewater	7,088	2,317	Y	Y	Y	60	M, T, Th	7.00-9.00	Y	Y	Y	Y	2.00	3.50-4.50	
Brookline	55,873	15,425	Y	Y	Y	62	M, W, F	7.15-9.15	Y	Y	Y	Y	1.50-2.00	3.50	1,595
Brookline	27,702	34,345	Y	Y	Y	57	M, W, F	7.30-9.30	N	N	N	Y	1.50-2.00	4.00	1,152
Cambridge	104,539	34,608	Y	Y	Y	60	M, T, Th	7.30-9.30	N	N	N	Y	1.50-2.00	4.00	917
Cambridge	4,797	1,156	Y	Y	Y	58	M, T, W	7.00-9.00	Y	Y	Y	Y	2.00	2.00	257
Cambridge	32,452	13,748	Y	Y	Y	30	M, T, W	7.15-9.00	Y	Y	Y	Y	2.00	1.50	238
Chillicothe	25,401	10,036	Y	Y	Y	60	M, T, Th	7.00-9.00	N	N	N	Y	2.00-2.50	1.50	125
Cincinnati	13,075	4,798	Y	Y	Y	46	M, W, Th	7.15-9.15	Y	Y	Y	Y	1.25-1.50	2.00-3.00	1,563
Easthampton	3,077	3,077	Y	Y	Y	100	M, T, W, Th	7.00-9.00	N	N	N	Y	1.10	2.10	541
Easthampton	8,607	80,854	Y	Y	Y	30	M, T, W, Th	7.15-9.00	N	N	N	Y	2.33	3.33	302
Everett	119,265	13,611	Y	Y	Y	20	M, T, Th	7.30-9.30	N	N	N	Y	1.50-2.25	2.50	100
Fitchburg	37,828	12,948	Y	Y	Y	37	M, T, Th	7.00-9.00	N	N	N	Y	1.75-1.25	5.00	527
Framingham	5,641	1,504	Y	Y	Y	32	M, T, W	7.00-9.00	N	N	N	Y	1.35	100	100
Franklin	14,690	5,312	Y	Y	Y	60	M, W, F	7.00-9.00	N	N	N	Y	1.00	3.00	96
Gardner	24,398	7,484	Y	Y	Y	55	M, T, W, F	7.15-9.15	N	N	N	Y	1.50	5.00	574
Gloster	10,427	1,918	Y	Y	Y	66	M, T, W, Th	7.00-9.00	N	N	N	Y	1.50	3.00	880
Greenfield	11,153	23,238	Y	Y	Y	66	M, T, W, Th	7.00-9.00	N	N	N	Y	1.50	3.00	1,961
Haverhill	57,730	41,319	Y	Y	Y	71	M, T, Th	7.00-9.00	N	N	N	Y	1.00-1.50	2.50-5.00	1,324
Holyoke	1,790	4,875	Y	Y	Y	44	M, T, Th	7.00-9.00	Y	Y	Y	Y	1.25	2.00	686
Hudson	85,892	106,294	Y	Y	Y	78	M, T, Th	7.30-9.30	Y	Y	Y	Y	2.00	5.00	225
Lawrence	17,580	43,467	Y	Y	Y	73	M, T, Th	7.30-9.30	Y	Y	Y	Y	2.00	2.00	95
Leominster	89,336	27,344	Y	Y	Y	60	M, W, F	7.00-9.00	Y	Y	Y	Y	2.00	2.00	30
Lynn	44,401	13,430	Y	Y	Y	67	M, W, F	7.15-9.15	N	N	N	Y	1.75	1.50	90
Malden	14,579	5,344	Y	Y	Y	42	M, T, W	7.30-9.00	N	N	N	Y	2.00-3.00	2.00	85
Marlboro	23,150	5,126	Y	Y	Y	43	M, W, F	7.30-9.00	Y	Y	Y	Y	2.00	2.50	66
Medford	11,448	4,501	Y	Y	Y	38	M, T, W	7.30-9.00	N	N	N	Y	2.00	2.00	1,857
Methuen	13,055	4,331	Y	Y	Y	43	M, W, F	7.15-9.15	N	N	N	Y	2.00	3.00-3.50	1,311
Milford	9,806	1,836	Y	Y	Y	54	M, W, F	7.30-9.00	Y	Y	Y	Y	2.00	3.00	523
Montague	9,806	1,987	Y	Y	Y	42	M, W, F	7.30-9.00	N	N	N	Y	2.00	2.00	100
Natick	5,026	1,584	Y	Y	Y	38	M, W, F	7.30-9.00	Y	Y	Y	Y	2.00	2.00	178
Needham	42,625	43	Y	Y	Y	52	M, W, F	7.15-9.15	N	N	N	Y	2.00	45	45
New Bedford	14,940	3,007	Y	Y	Y	60	M, W, F	7.30-9.00	N	N	N	Y	1.50-2.00	3.00	147
Newburyport	39,805	11,191	Y	Y	Y	32	M, T, Th	7.30-9.00	Y	Y	Y	Y	2.00	3.00	160
Newton	22,019	4,046	Y	Y	Y	24	M, T, Th	7.45-9.15	N	N	N	Y	2.00	2.00	285
North Adams	19,431	4,880	Y	Y	Y	49	M, T, Th	7.30-9.00	N	N	N	Y	2.00	2.00	377
Northampton	22,431	2,490	Y	Y	Y	61	M, T, Th	7.30-9.00	N	N	N	Y	2.00	2.00	311
North Attleboro	9,562	3,560	Y	Y	Y	49	M, T, Th	7.30-9.00	N	N	N	Y	2.00	2.00	523
North Attleboro	8,807	2,555	Y	Y	Y	24	M, T, W	7.30-9.00	N	N	N	Y	2.00	2.00	100
Northbridge	8,014	3,074	Y	Y	Y	51	M, W	7.30-9.00	N	N	N	Y	2.00	2.00	147
Norwood	8,610	15,721	Y	Y	Y	49	M, W, F	7.30-9.30	N	N	N	Y	2.00	2.00	160
Palmer	15,721	5,341	Y	Y	Y	32	M, W, F	7.30-9.30	N	N	N	Y	2.00	2.00	285
Peabody	32,121	6,744	Y	Y	Y	49	M, W, F	7.30-9.30	N	N	N	Y	2.00	2.00	377
Plymouth	12,141	3,722	Y	Y	Y		M, W, F	7.30-9.30	N	N	N	Y	2.00	6.00	311

**For certain pupils.**



TABLE 6.—Statistics relating to evening schools, 1914-15—Continued.

(NOTE.—Y indicates Yes; N indicates No; ..... indicate No data.)

Cities and towns.	Census of 1910.		Evening schools.			Sessions.			Fees.	Depos- its.	Salaries (per evening unless otherwise indicated).		Enroll- ment of foreign pupils.
	Popula- tion.	Foreign- born whites.	Public.	Public, with classes for for- eigners.	Private, with classes for for- eigners.	Num- ber of ses- sions.	Evenings of week.	Hours.			Teachers.	Principals.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
MASSACHUSETTS—continued.													
Quincy.....	32,642	10,875	Y	Y	.....	80	M, W, F	7.00-9.00	N	Y	\$2.00	\$3.00	634
Revere.....	18,219	5,331	Y	Y	.....	40	M, T, W, Th, F	7.30-9.30	N	Y	2.00	2.50	106
Rockland.....	6,928	1,110	Y	Y	Y	42	M, T, W, Th, F	7.00-9.00	Y	Y	0	.....	42
Salem.....	43,697	13,539	Y	Y	Y	55	M, T, W, Th, F	7.00-9.00	Y	Y	1.25	2.50	500
Shirley.....	2,139	.....	Y	Y	.....	40	M, T, W, Th, F	7.00-8.30	N	Y	1.00	.....	25
Somerville.....	77,236	20,751	Y	Y	.....	77	M, T, W, Th, F	7.30-9.30	N	N	1.50-2.00	4.00-6.00	500
Southbridge.....	12,592	4,315	Y	Y	.....	30	M, T, W, Th, F	7.00-8.30	Y	Y	1.00	1.50	313
Springfield.....	88,926	22,999	Y	Y	.....	67	M, T, W, Th, F	7.00-9.00	Y	Y	1.50-2.00	3.50	1,658
Stoneham.....	7,090	1,362	Y	Y	.....	60	M, W, F	7.30-9.30	N	Y	2.00	2.00	76
Stoughton.....	6,316	1,439	Y	Y	.....	36	M, W, F	7.00-9.00	N	Y	2.00	.....	.....
Swampscott.....	6,204	1,369	Y	Y	Y	.....	.....	.....	N	Y	1.50-1.75	3.00	515
Taunton.....	34,269	9,779	Y	Y	.....	48	M, T, W	7.30-9.30	N	Y	1.50	3.00	119
Wakefield.....	11,404	3,128	Y	Y	.....	60	M, T, W, F	7.15-9.15	N	Y	2.50	2.50	260
Waltham.....	27,834	7,853	Y	Y	.....	59	M, T, W, Th, F	7.00-9.00	N	Y	1.50-2.50	4.00	180
Ware.....	8,774	3,223	Y	Y	.....	65	M, T, W, Th, F	7.00-9.00	N	Y	1.50-2.50	4.00	151
Watertown.....	12,875	4,067	Y	Y	.....	57	M, T, W, Th, F	7.00-9.00	N	Y	2.00	3.00	100
Webster.....	11,509	4,067	Y	Y	.....	100	M, T, W, Th, F	7.00-9.00	N	Y	2.00	2.00-2.50	81
Wellesley.....	5,413	1,559	Y	Y	.....	60	M, W, F	7.15-9.15	N	Y	1.50	2.00	340
Westfield.....	16,044	4,401	Y	Y	.....	61	M, T, W, Th, F	7.30-9.30	N	Y	1.50	2.00	91
West Springfield.....	9,224	2,100	Y	Y	.....	30	M, T, W, Th, F	7.30-9.00	N	Y	1.50	2.50	164
Whitman.....	7,292	1,108	Y	Y	.....	30	M, T, W, Th, F	7.30-9.00	N	Y	2.50	4.00	46
Worcester.....	9,399	2,486	Y	Y	.....	50	M, T, W, Th, F	7.30-9.30	N	Y	1.50	2.00	131
Winthrop.....	10,132	2,083	Y	Y	.....	46	M, W, F	7.30-9.30	N	Y	1.00-1.50	2.00	1,911
Woburn.....	15,328	4,039	Y	Y	.....	35	M, T, W, Th, F	7.15-9.15	N	Y	.....	.....	.....
Worcester.....	145,986	48,492	Y	Y	.....	108	M, T, W, Th, F	7.15-9.15	N	Y	.....	.....	.....
MICHIGAN.													
Albion.....	5,833	775	Y	Y	.....	57	M, T, W, F	7.00-9.00	N	Y	2.80	.....	.....
Alpena.....	12,706	3,886	Y	Y	.....	57	M, T, W, F	7.00-9.00	N	Y	2.40	.....	.....

[illegible]

1 For certain pupils.

**And expenses.**

**2 Per week.**

<sup>4</sup> Per hour or period.

**High school has Thursday in addition.**

**\* Per month.**

TABLE 6.—*Statistics relating to evening schools, 1914-15—Continued.*

[NOTE.—Y indicates Yes; N indicates No; ..... indicate No data.]

Cities and towns.	Census of 1910.		Evening schools.			Sessions.			Fees.	Depos- its.	Salaries (per evening unless otherwise indicated).		Enroll- ment of foreign pupils.
	Popula- tion.	Foreign- born whites.	Public.	Public with classes for for- eigners.	Private, with classes for for- eigners.	Num- ber of ses- sions.	Evenings of week.	Hours.			Teachers.	Principals.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
NEW HAMPSHIRE.													
Claremont.....	7,529	1,819											
Concord.....	21,497	4,309											
Dover.....	13,247	3,296	Y	Y		34	M, T, W	7.15-8.45		N	\$0.75	\$1.25	106
Manchester.....	70,063	29,692	Y	Y		50	M, T, W, Th, F	7.30-9.00	N		2.00	3.00	165
Nashua.....	26,005	8,957	Y	Y		82	M, T, W, F	7.30-9.00		Y	1.00	2.00	702
Portsmouth.....	11,269	2,138	Y	N	Y	72	M, T, Th, F	7.00-9.00		Y	1.50	2.50	
NEW JERSEY.													
Atlantic City.....	46,150	6,400	Y	Y		74	M, T, W, Th	7.15-9.15	N	Y	2.50	3.00-4.00	676
Bayonne.....	55,545	20,522	Y	Y		68	M, T, W, Th	7.00-9.00	N	Y	2.00	3.00	122
Bloomfield.....	15,070	3,359	Y	Y		64	M, T, W, Th	7.30-9.30	N		2.50	3.25	85
Bordentown.....	4,250	349	Y	Y		64	M, T, W, Th	7.00-9.00	N	Y	\$80.00	0	24
Bridgeton.....	14,209	691	Y	Y			M, T, W, Th	7.30-9.30	N		0		
Camden.....	94,538	15,682	Y	Y			M, T, W, Th	{ 7.15-9.15 7.30-9.30 }	N	Y	2.50	4.00	
Elizabeth.....	73,409	23,894	Y	Y		65	M, T, Th	7.30-9.30	N	Y	3.00		
Englewood.....	9,924	2,500	Y	Y		64	M, T, Th	8.00-10.00	N				
Garfield.....	10,213	5,365	Y	Y					N				
Garwood.....	1,118		Y	Y		64	M, T, W, Th	7.30-9.00	N	Y	2.00	3.00	70
Hackensack.....	14,050	3,255	Y	Y		64	M, T, W, Th	7.30-9.30	N		3.00	4.00	125
Haddonfield.....	282	4,142	Y	Y		64	M, T, W, Th	7.00-9.00	N				
Hammononton.....	5,088	1,548	Y	Y					N				
Hoboken.....	70,324	27,668	Y	Y		64	M, T, Th, F	7.30-9.30	N	Y	3.00-4.00	6.00	917
Irvington.....	2,480		Y	Y					N				
Jersey City.....	11,877	11,877	Y	Y		* 72	M, T, Th, F	7.30-9.30	N	Y	2.00	4.00	1,199
Kearney.....	287,779	77,997	Y	Y		64	M, T, W, Th, F	7.30-9.30	N		2.50		58
Long Branch.....	18,659	6,024	Y	Y		64	M, T, Th, F	7.30-9.30	N		2.50		43
Linden.....	610		Y	Y		64	M, T, W, Th	7.30-9.30	N	Y	2.50	3.50	93
Montclair.....	21,550	5,141	Y	Y		99	M, T, W, Th, F	7.30-9.30	N	Y	2.50	3.00	296

Morris town.....	2,637	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
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<sup>4</sup> Foreign pupils. Other sections vary from 76 to 155.  
<sup>5</sup> In certain quarters Wednesday is substituted for Friday.  
<sup>6</sup> Per hour of period.

<sup>1</sup> For certain pupils.  
<sup>2</sup> Per year.  
<sup>3</sup> High school, 90.

TABLE 6.—*Statistics relating to evening schools, 1914-15—Continued.*

[NOTE.—Y indicates Yes; N indicates No; ..... indicate No data.]

Cities and towns.	Census of 1910.		Evening schools.			Sessions.			Fees.	Depos- its.	Salaries (per evening unless otherwise indicated).		Enroll- ment of foreign pupils.
	Popula- tion.	Foreign- born whites.	Public.	Public, with classes for for- eigners.	Private, with classes for for- eigners.	Num- ber of ses- sions.	Evenings of week.	Hours.			Teachers.	Principals.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
NEW HAMPSHIRE.													
Claremont.....	7,529	1,819				34	M, T, W, Th, F	7.15-8.45	N	N	\$0.75	\$1.25	106
Concord.....	21,497	4,309	Y	Y		50	M, T, W, Th, F	7.30-9.00	N	N	2.00	3.00	165
Dover.....	13,247	3,296	Y	Y		84	M, T, W, Th, F	7.00-9.00	N	Y	1.50	2.00	702
Manchester.....	70,063	29,692	Y	Y		82	M, T, W, Th, F	7.30-9.00	N	Y	1.00	2.00	
Nashua.....	26,005	8,957	Y	Y		72	M, T, Th, F	7.00-9.00	N	Y	1.50	2.50	
Portsmouth.....	11,269	2,133	N		Y				N				
NEW JERSEY.													
Atlantic City.....	46,150	6,400	Y	Y		74	M, T, W, Th	7.15-9.15	N	Y	2.50	3.00-4.00	
Bayonne.....	55,545	20,522	Y	Y		68	M, T, W, Th	7.00-9.00	N	Y	2.00	3.00	85
Bloomfield.....	15,070	3,359	Y	Y		64	M, T, W, Th	7.30-9.30	N	Y	2.50	3.25	24
Bordentown.....	4,250	4,349	Y	Y		64	M, T, W, Th	7.00-9.00	N	Y	\$80.00	0	
Bridgeton.....	14,209	691	Y	Y			M, T, W, Th	7.30-9.30	N				
Camden.....	94,538	15,682	Y	Y									
Elizabeth.....	73,409	23,894	Y	Y		65	M, T, W Th	7.15-9.15	N	Y	2.50	4.00	676
Englewood.....	9,924	2,500	Y	Y		64	M, T, Th	8.00-10.00	N	Y	3.00		122
Garfield.....	10,213	5,365	Y	Y					N				
Garwood.....	1,118	3,255	Y	Y		64	M, T, W, Th	7.30-9.00	N	Y	2.00	3.00	70
Hackensack.....	14,050	4,262	Y	Y		64	M, T, W, Th	7.00-9.00	N	Y	3.00	4.00	125
Haddonfield.....	4,142	1,548	Y	Y	N				N				
Hammonilton.....	5,088	2,608	Y	Y		64	M, T, Th, F	7.30-9.30	N	Y	3.00-4.00	6.00	917
Hoboken.....	70,324	27,668	Y	Y					N				
Irvington.....	11,577	2,480	Y	Y		* 72	M, T, Th, F	7.30-9.30	N	Y	2.00	4.00	1,199
Jersey City.....	267,779	77,697	Y	Y		64	M, T, W, Th, F	7.30-9.30	N	Y	2.50	3.50	58
Kearney.....	18,659	6,024	Y	Y		64	M, T, W, Th	7.30-9.30	N	Y	2.50	3.50	43
London.....	610	2,329	Y	Y		69	M, T, W, Th	7.30-9.30	N	Y	2.50	3.50	83
Long Branch.....	13,298	2,550	Y	Y					N				286
Montclair.....	21,550	5,141	Y	Y					N				

[illegible]

- \* Foreign pupils. Other sections vary from 76 to 155.
- \* In certain quarters Wednesday is substituted for Friday.
- \* Per hour or period.

<sup>1</sup> For certain pupils.  
<sup>2</sup> Per year.  
<sup>3</sup> High school, 90.

TABLE 6.—*Statistics relating to evening schools, 1914-15—Continued.*  
 [NOTE.—Y indicates Yes; N indicates No; ..... indicate No data.]

Cities and towns.	Census of 1910.		Evening schools.			Sessions.			Fees.	Depos- its.	Salaries (per evening unless otherwise indicated).		Enroll- ment of foreign pupils.
	Popula- tion.	Foreign- born whites.	Public.	Public, with classes for for- eigners.	Private, with classes for for- eigners.	Num- ber of ses- sions.	Evenings of week.	Hours.			Teachers.	Principals.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
NEW YORK—continued.													
Newburgh.....	27,805	4,883				48	M, W, F M, T, W, Th	7:30-9:30	N	Y	\$2.00 3.00-3.50	1,850.00 3.50-4.00	80 353
New Rochelle.....	28,867	8,677	Y	Y		70	M, T, W, Th	7:30-9:30	N	Y	3.00	5.00	36,993
New York.....	4,766,883	1,027,708	Y	Y		190	M, T, W, Th	{ 7:15-9:15 8:00-10:00	N	N	1.50-2.00 2.00	2.50 2.25	100 71
Niagara Falls.....	30,444	12,064	Y	Y		44	M, T, Th, F M, W, F	7:30-9:30	N	Y	2.00	2.00	151
North Tonawanda.....	11,955	3,628	Y	Y		39	M, T, W, Th	7:30-9:30	N	Y	1.80 2.00-2.50	2.00 4.00-5.00	167 2,320
Olean.....	14,743	2,424	Y	Y		46	M, T, W, F	7:30-9:30	N	Y	1.25	.....	302
Peachkill.....	15,245	2,305	Y	Y		20	M, T, W, Th	7:30-9:30	N	Y	2.00	3.00	406
Poughkeepsie.....	27,936	4,534	Y	Y		85	M, T, W, Th	7:30-9:15	N	Y	2.00	2.50	1,278
Rochester.....	218,149	58,963	Y	Y		72	M, T, Th	7:30-9:30	N	Y	3.00	6.00	2,800
Rockville Center.....	3,967	4,420	Y	Y	Y	60	M, T, Th	7:00-9:00	N	Y	2.00	3.00	50
Rome.....	20,497	4,114	Y	Y		50	M, T, W, Th	7:30-9:30	N	Y	2.00	3.00	76
Schenectady.....	72,896	18,631	Y	Y		72	M, T, W, Th	7:30-9:30	N	Y	2.00	3.00	550
Solvay.....	6,139	1,063	Y	Y		51	M, T, Th	7:00-9:00	N	Y	2.00	3.00	.....
Syracuse.....	137,249	30,781	Y	Y		80	M, T, W, Th	7:15-8:45	N	Y	2.00	2.50	1,278
Troy.....	76,813	15,432	Y	Y		66	M, T, W	7:00-9:00	N	Y	3.00	6.00	2,800
Utica.....	74,419	21,308	Y	Y		40	M, T, W	7:30-9:00	N	Y	2.00	3.00	.....
Watertown.....	26,730	6,268	Y	Y		53	M, T, W, Th	7:00-9:00	N	Y	1.25 1.00	200.00	50 76
White Plains.....	15,949	3,898	Y	Y		82	M, T, W, Th	7:30-9:00	N	Y	3.00-3.50	.....	550
Yonkers.....	79,803	26,590	Y	Y		82	M, T, W, Th	7:30-9:30	N	Y	.....	.....	.....
NORTH CAROLINA.													
Charlotte.....	34,014	472	Y	N		48-76	.....	{ 7:30-9:00 8:00-9:30	Y	.....	.....	.....	.....
Concord.....	8,715	21	Y	N		20	T, F	7:30-9:00	N	Y	0	0	.....
Durham.....	18,241	228	Y	N		100	M, T, W, Th	7:30-9:00	N	Y	.....	.....	.....
Raleigh.....	19,218	151	Y	N		48	M, W, F	7:30-10:30	Y	.....	.....	.....	.....
Salisbury.....	7,153	72	Y	N		16	M, W, F	7:00-9:00	N	Y	0	0	.....

## STATISTICS RELATING TO EVENING SCHOOLS.

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OHIO.																			
City	Enrollment	Teachers	Students	Grades	Subjects	Term	Term	Term	Term	Term	Term	Term	Term	Term	Term	Term	Term	Term	Term
Alton	69,067	13,241	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Ashland	18,286	4,710	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Barberton	9,410	2,880	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Chillicothe	14,508	618	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cincinnati	368,891	86,792	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cleveland	560,663	186,703	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Columbus	181,511	16,286	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cincinnati	8,319	1,533	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cincinnati	9,603	1,486	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Dayton	116,577	13,847	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Ellettsville	14,835	8,061	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Greenfield	6,287	1,183	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Hamilton	36,379	3,309	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Ironton	13,147	7,466	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Middletown	12,152	1,192	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Nelsonville	6,063	2,602	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Niles	8,341	2,602	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Norwood	16,185	1,386	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Oberlin	4,366	1,066	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Piqua	12,338	752	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Steubenville	22,391	5,214	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Toledo	188,497	32,037	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Y. M. C. A.	11,051	1,353	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Warren	11,051	1,353	N	Y	M, T, W, Th	7:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
OKLAHOMA.																			
Durant	5,330	52	N	Y	M, T, W, Th	7:30-9:00	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Muskogee	25,278	537	N	Y	M, T, W, Th	7:30-9:00	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Tulsa	18,182	412	N	Y	M, T, W, Th	7:30-9:00	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
OREGON.																			
Astoria	9,599	4,068	N	Y	M, T, W, Th	7:00-9:00	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Baker City	6,742	603	N	Y	M, T, W, Th	8:00-9:30	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Portland	207,214	43,780	N	Y	M, T, W, Th	7:15-9:15	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PENNSYLVANIA.																			
Allentown	51,913	6,284	N	Y	M, T, W, Th	7:00-9:00	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Altoona	52,127	5,212	N	Y	M, T, W, Th	7:30-9:45	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Ambridge	5,205	1,073	N	Y	M, T, W, Th	7:00-9:00	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Archbald	7,194	2,004	N	Y	M, T, W, Th	7:00-9:00	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Ashley	5,601	1,637	N	Y	M, T, W, Th	7:00-9:00	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Beaver Falls	12,191	2,851	N	Y	M, T, W, Th	7:00-9:00	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Berwick	5,357	395	N	Y	M, T, W, Th	7:00-9:00	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Bethlehem	12,837	797	N	Y	M, T, W, Th	8:00-10:00	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

\* Opens any time between 7 and 8 and continues two hours.

\* For certain pupils.

\* Per hour or period.

\* Largely volunteer.

\* High and trade schools, 120.

\* These data refer to the Y. M. C. A.

\* Rome leaves all work with foreigners to the Y. M. C. A.

\* School conducted jointly by board of education and private organizations.

\* Per month.

\* Per year.

\* Per year.



TABLE 6.—*Statistics relating to evening schools, 1914-15—Continued.*

[Norr.—Y indicates Yes; N indicates No; ..... indicate No data.]

Cities and towns.	Census of 1910.		Evening schools.			Sessions.		Fees.	Deposits.	Salaries (per evening unless otherwise indicated).		Enrollment of foreign pupils.
	Population.	Foreign-born whites.	Public.	Public, with classes for foreigners.	Private, with classes for foreigners.	Num-ber of ses-sions.	Evenings of week.			Teachers.	Principals.	
1	2	3	4	5	6	7	8	9	10	11	12	13
PENNSYLVANIA—continued.												
Butler.....	20,728	3,510	N	N	Y	48	M, Th	7:00-8:30	N			
Carbonale.....	17,040	2,997	Y	Y		96	M, T, W, Th, F	7:30-8:30	N			
Chambersburg.....	11,800	6,172	Y	Y		120	M, T, W, Th, F	6:30-8:00	N			
Chester.....	38,538	6,673	Y	Y		58	M, T, W, Th, F	7:00-8:00	N			
Coaldale.....	5,154	1,905	Y	Y		20	M, T, W, Th, F	7:30-8:30	N			
Coleburg.....	1,302		Y	Y		84	T, W, F	7:30-8:30	Y			
Columbia.....	11,454	657	Y	Y		80	M, T, W, Th, F	7:00-8:00	N			
Connellsville.....	12,945	1,567	Y	Y		106	M, W, F	7:30-8:30	N			
Donaora.....	8,174	3,213	Y	Y		60	M, W, F	7:30-8:30	N			
Duquesne.....	12,623	2,122	Y	Y		72	M, W, F	7:30-8:30	N			
Duryea.....	15,727	6,381	Y	Y		96	M, T, W, Th, F	7:00-8:00	N			
Easton.....	7,467	3,006	Y	Y		112	M, T, W, Th, F	7:00-8:00	N			
East Pittsburgh.....	28,523	3,122	Y	Y		106	M, W, F	7:30-8:30	N			
Edwardsville.....	5,015	1,963	Y	Y		60	M, W, F	7:30-8:30	N			
Erie.....	8,407	3,538	Y	Y		72	M, W, F	7:30-8:30	N			
Ford City.....	66,525	14,943	Y	Y		96	M, T, W, Th, F	7:00-8:00	N			
Grove City.....	4,950	2,314	Y	Y		124	M, T, W, Th, F	7:00-8:00	N			
Harrisburg.....	3,674	134	Y	Y		80	M, T, W, Th, F	7:00-8:00	N			
Hazleton.....	64,186	4,134	Y	Y		124	M, T, W, Th, F	7:00-8:00	N			
Honesdale.....	25,452	5,994	Y	Y		80	M, T, W, Th, F	7:00-8:00	N			
Jeannette.....	18,713	7,068	Y	Y		52	M, T, W, Th, F	7:00-8:00	N			
Johnstown.....	8,077	1,774	Y	Y		80	M, T, W, Th, F	7:00-8:00	N			
Kingston.....	56,082	15,316	Y	Y		80	M, T, W, Th, F	7:00-8:00	N			
Lancaster.....	6,449	1,884	Y	Y		80	M, T, W, Th, F	7:00-8:00	N			
Lansford.....	47,227	3,203	Y	Y		80	M, T, W, Th, F	7:00-8:00	N			
Luverne.....	8,323	3,154	Y	Y		80	M, T, W, Th, F	7:00-8:00	N			
Mount Carmel.....	5,726	1,750	Y	Y		80	M, T, W, Th, F	7:00-8:00	N			
Munhall.....	17,532	4,927	Y	Y		80	M, T, W, Th, F	7:00-8:00	N			
Nanticoke.....	5,185	1,705	Y	Y		80	M, T, W, Th, F	7:00-8:00	N			
	18,877	7,187	Y	Y		80	M, T, W, Th, F	7:00-8:00	N			

	36,280	8,620	Y	Y	72	M, T, Th	7:30-9:30	N	Y	2.00	2.50	450
New Castle.....	7,707	2,376	Y	N	Y		7:00-9:00	N	Y			
New Kensington.....	27,875	4,015	Y	Y								
Norristown.....	11,824	3,365	Y	Y	72	M, T, W	7:30-9:30	N	Y	2.00	3.33	9,087
North Braddock.....	1,549,008	382,578	Y	Y	60	M, T, W, Th	7:30-9:30	N	Y	2.00-4.00	4.00-7.00	4,977
Philadelphia.....	1,533,005	140,486	Y	Y	100	M, T, W, Th	7:30-9:30	N	Y	2.00	2.00	213
Pittsburgh.....	96,071	8,812	Y	N	24					1.00		6
Reading.....	5,408	1,145	Y	Y								
Ridgway.....	6,346	7,780	Y	Y	42	M, W, F	7:15-9:15	Y	Y	1.50		110
St. Marys.....	6,426	516	Y	Y	80	M, T, W, Th	7:30-9:30	Y	Y	2.00	2.50	177
Saratoga.....	129,867	35,112	Y	Y	70	M, T, W, F	6:30-8:30	N	Y	1.50		80
Shamokin.....	19,588	2,788	Y	Y			6:00-9:00	N				
South Fork.....	4,592	1,127	Y	Y								
Taylor.....	9,060	3,369	Y	Y	80	M, T, W, Th, F	7:00-9:00	N	N	1.80.00	1.80.00	
Thiropo.....	5,133	2,361	Y	Y	115	M, T, W, Th, F	7:30-9:30	N	N	2.00		
Titusville.....	8,533	1,554	Y	Y	20	M, T, W, Th, F	7:30-9:30	Y	Y			
Tyrone.....	7,176	1,221	Y	Y	90	M, T, W, Th, F	7:00-9:00	N	Y	1.50		9
Uniontown.....	13,344	1,447	Y	Y	40	M, T, W, Th, F	7:15-9:15	N	Y	1.00	1.00	172
Wilkes-Barre.....	67,105	16,078	Y	Y								
Wilkesburg.....	18,924	1,971	Y	Y								
Wilmerding.....	6,133	2,112	Y	Y								
RHODE ISLAND.												
Burrillville.....	7,878	2,454	Y	Y	56	M, W, F	7:30-9:00	N		1.00	2.00	
Central Falls.....	22,754	10,664	Y	Y						1.00	2.00	
Coventry.....	5,848	1,346	Y	Y	78-96	M, T, Th, F	6:45-8:45	N	Y	1.00		15
Johnston.....	5,935	2,313	Y	Y	48-49	M, T, Th, F	7:00-9:00	N	Y	1.00-1.25		45
Lincoln.....	9,825	4,181	Y	Y	59	M, T, Th, F	7:30-9:30	N		2.00-3.00	3.00	
Newport.....	27,149	6,256	Y	Y								
North Providence.....	5,407	2,515	Y	Y	55	M, W, F	7:30-9:00	N	Y	1.00	2.00	201
Pawtucket.....	51,622	17,956	Y	Y	61	M, W, F	7:30-9:30	N	Y	1.33	3.00	148
Providence.....	224,326	76,303	Y	Y	79-169	M, T, W, Th, F	7:30-9:30	N	Y	2.00	4.00	400
Y. M. C. A.....			Y	Y	58	M, T, Th, F	7:30-9:00	N	Y	2.75		
Warren.....	6,585	2,393	Y	Y	60	M, W, F	7:30-9:00	N	Y	1.00	2.00	131
Westerly.....	8,096	2,347	Y	Y	54	M, W, Th, F	7:30-9:00	N	Y	1.50	2.00	314
Woonsocket.....	38,125	16,539	Y	Y	60	M, T, W, Th, F	7:15-9:15	N		1.00	2.00	
SOUTH CAROLINA.												
Anderson.....	9,654	73	Y	N	80	M, T, Th, F	7:00-9:00	N				
Charleston.....	58,833	2,404	Y	Y	106	M, T, Th	7:00-8:30	N				5
Columbia.....	26,319	33	Y	Y								
Greenwood.....	6,614	33	Y	Y								
Newberry.....	5,028	26	Y	Y								
Rockhill.....	7,216	40	Y	Y								
Spartanburg.....	17,517	143	Y	Y	42	M, W, F	7:30-9:30	N				
Union.....	5,623	38	Y	Y								

\* For certain pupils.

† Pupils attend Providence evening schools.

‡ Three evenings.

§ Per hour or period.

¶ Per month.

TABLE 6.—Statistics relating to evening schools, 1914-15—Continued.

(NOTE.—Y indicates Yes; N indicates No; ..... indicate No data.)

Cities and towns.	Census of 1910.		Evening schools.			Sessions.			Fees.	Depos- its.	Salaries (per evening unless otherwise indicated).		Enroll- ment of foreign pupils.
	Popula- tion.	Foreign- born whites.	Public.	Public, with classes for for- eigners.	Private, with classes for for- eigners.	Num- ber of ses- sions.	Evenings of week.	Hours.			Teachers.	Principals.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
TENNESSEE.													
Bristol.....	7,148	71	Y	Y	Y	7	8	9	10	11	12	13	14
Memphis.....	131,105	6,467	Y	Y	Y	.....	.....	.....	.....	.....	.....	.....	.....
Nashville.....	110,364	2,993	Y	N	.....	92	M, T, W, Th	7.00-9.00	.....	.....	.....	.....	.....
TEXAS.													
Austin.....	29,890	2,441	Y	Y	Y	.....	.....	.....	.....	.....	.....	.....	.....
Galveston.....	36,981	6,164	Y	N	.....	72	M, W, F	7.15-9.15	N	N	\$2.00	\$3.00	131
Houston.....	78,800	6,318	Y	Y	Y	82	M, W, F	7.15-9.15	N	N	2.25	.....	223
San Antonio.....	96,614	17,407	Y	Y	.....	.....	.....	.....	.....	.....	.....	.....	.....
UTAH.													
Ogden.....	25,580	4,454	Y	Y	Y	100	M, T, W, Th, F	7.00-10.00	N	N	11.00	.....	300
Provo.....	8,925	1,227	Y	N	.....	86	Th	7.00-9.00	N	N	.....	.....	56
Salt Lake City.....	92,777	19,055	Y	Y	Y	71	.....	7.00-9.00	N	N	\$25.00	.....	.....
VERMONT.													
Barre.....	10,734	4,106	Y	N	.....	56	M, W, Th	7.30-9.30	Y	Y	\$4.50	.....	.....
Burlington.....	20,498	3,938	Y	Y	Y	20	Th, Th	7.00-9.00	Y	N	1.00	.....	10
Montpelier.....	7,866	1,449	N	N	.....	40	M, T, Th, F	7.00-8.00	Y	Y	9.66	.....	23
Proctor.....	2,871	1,340	N	N	.....	.....	.....	.....	.....	.....	.....	.....	.....
VIRGINIA.													
Newport News.....	20,205	1,680	Y	N	Y	68	M, Th	7.30-9.30	N	N	\$20.00	\$25.00	.....
Norfolk.....	67,452	8,664	N	N	.....	72	M, T, Th	7.30-9.30	N	N	.....	.....	.....
Portsmouth.....	23,190	1,115	N	N	Y	72	M, T, Th	7.00-9.00	N	N	.....	.....	.....
Richmond.....	127,028	4,085	Y	Y	.....	.....	.....	7.30-9.30	N	N	\$30.00	\$35.00	42

WASHINGTON.									
Bellingham.....	24,298	5,152	Y	Y	37	M, W, F	7.30-9.30	N	146
Everett.....	24,814	5,472	N	N	48	T, Th, F	7.00-9.00	Y	125
North Yakima.....	14,082	2,027	Y	Y	67	M, W, F	7.15-9.15	Y	707
Roslyn.....	3,126	1,556	Y	Y	69	M, W, F	7.30-9.30	Y	737
Seattle.....	237,194	60,835	Y	Y	30	M, W, F	7.30-9.30	Y	23
Spokane.....	104,402	21,220	Y	Y					
Tacoma.....	83,743	21,463	Y	Y					
Walla Walla.....	19,364	2,361	Y	Y					
WEST VIRGINIA.									
Charleston.....	22,996	1,014	Y	Y	60	M, T, Th	7.00-9.00	Y	
Morgantown.....	9,150	1,113	Y	N	58	M, W, F	7.00-9.00	Y	
Parkersburg.....	17,842	560	Y	N	60	M, W, F	7.30-9.30	N	
Wheeling.....	41,641	5,418	Y	N					
WISCONSIN.									
Appleton.....	16,773	3,257	Y	Y	48	M, W	7.30-9.30	Y	22
Beloit.....	15,125	2,395	Y	Y	40	T, Th	7.30-9.30	Y	100
Cudahy.....	3,691	1,694	Y	Y	51	M, F	7.30-9.30	Y	60
Fond du Lac.....	18,797	3,062	Y	Y		T, Th	7.30-9.30	Y	89
Janesville.....	13,894	1,997	Y	Y				Y	487
Kenosha.....	21,371	7,642	Y	Y	48	T, Th	7.00-9.00	N	131
La Crosse.....	30,417	6,043	Y	Y	90	M, W, F	7.30-9.30	N	49
Madison.....	26,531	4,174	Y	Y	72	M, W, F	7.30-9.30	N	18
Manitowoc.....	13,027	2,534	Y	Y	44	T, Th	7.20-9.20	N	
Marshfield.....	5,783	1,095	Y	Y	30	M, W, F	7.30-9.30	N	
Menasha.....	6,081	1,420	Y	Y	111	M, W, F	7.15-9.15	N	
Menomonie.....	5,036	1,258	Y	Y	60	M, W, F	7.30-9.30	Y	14
Milwaukee.....	373,857	111,456	Y	Y	69	M, W, F	7.00-9.15	Y	6,777
Neenah.....	5,734	1,313	Y	Y					
Oshkosh.....	33,062	7,406	Y	Y	63	M, W, F	7.30-9.30	Y	568
Racine.....	38,002	12,509	Y	Y	47	T, Th	7.30-9.30	N	359
Sheboygan.....	26,398	8,667	Y	Y				N	11
Stevens Point.....	8,092	1,712	Y	Y	96	M, W, Th	7.30-9.30	N	390
Superior.....	40,384	13,772	Y	Y	48	M, Th	7.15-9.15	N	30
Two Rivers.....	4,850	836	Y	Y	32	M, Th	7.15-9.15	N	4
Watertown.....	8,829	1,949	Y	Y		T, Th	7.00-9.00	N	4
Wausau.....	16,560	3,918	Y	Y	60	M, W, F	7.15-9.15	N	15
West Allis.....	6,045	2,420	Y	Y					105

\* For certain pupils.

\* Per week.

\* Per month.

\* Per hour or period.



DEPARTMENT OF THE INTERIOR  
BUREAU OF EDUCATION

BULLETIN, 1916, NO. 19

STATE  
HIGHER EDUCATIONAL INSTITUTIONS  
OF IOWA

A REPORT TO THE IOWA STATE BOARD OF EDUCATION  
OF A SURVEY MADE UNDER THE DIRECTION OF  
THE COMMISSIONER OF EDUCATION



WASHINGTON  
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1916

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## ERRATA.

- P. 30. Change 68,000 in next to last line to 72,000; change 9,900 to 10,600.  
 43. Total expenditures, University of Iowa, should read \$1,017,805.72, instead of \$1,017,806.72.  
 44. Total expenditures, Iowa State College, should read \$1,462,684.25, instead of \$1,461,684.25.  
 45. Expenditures for extension and industrial service, State College, should read \$449,348.74, instead of \$449,348.79.  
 84. Line 5 should read, "Department of the Interior," instead of "Department of Agriculture."  
 139. Omit (d) under "Utilization of Buildings."  
 192. Same change as on p. 44.

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## LETTER OF TRANSMITTAL.

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DEPARTMENT OF THE INTERIOR,  
BUREAU OF EDUCATION,  
*Washington, August 21, 1916.*

SIR: I am transmitting herewith for publication as a bulletin of the Bureau of Education the report of the survey of State higher educational institutions of Iowa, made under my direction for the Iowa State Board of Education by the following committee appointed by me for that purpose:

Dr. James R. Angell, dean of the faculties of liberal arts, literature, and science of the University of Chicago.

Dr. Kendric C. Babcock, dean of the college of arts and sciences of the University of Illinois.

Dr. Liberty H. Bailey, formerly director of the New York State College of Agriculture.

Dr. Hollis Godfrey, president of Drexel Institute, Philadelphia.

Dr. Raymond M. Hughes, president of Miami University.

Mrs. Henrietta W. Calvin, specialist in home economics, Bureau of Education.

Dr. Samuel P. Capen, specialist in higher education, Bureau of Education (chairman).

This report and the conclusions in the form of constructive recommendations were unanimously agreed upon by the members of the survey committee and approved by me.

The publication of this and reports of somewhat similar surveys made by this bureau should tend toward the establishment of more definite standards in the various fields of education and the formation of certain national policies which may gradually be adopted, always of course with necessary local modifications, throughout the country.

Respectfully submitted.

P. P. CLAXTON,  
*Commissioner.*

The SECRETARY OF THE INTERIOR.



# STATE HIGHER EDUCATIONAL INSTITUTIONS OF IOWA. .

## INTRODUCTION.

In the latter part of February, 1915, the Iowa State Board of Education requested the assistance of the United States Bureau of Education in the preparation of a budget for the three State higher institutions under the board's control. The invitation to the Commissioner of Education, in addition to rehearsing the recent history of the Iowa State institutions and suggesting the matters on which advice was desired, stated specifically:

That the State board of education has no desire to reopen the coordination question in the sense of combining the colleges of engineering and home economics as organized at the State University of Iowa and the Iowa State College of Agriculture and Mechanic Arts, or the abandonment of the college courses at the Iowa State Teachers College; but the Iowa State Board of Education would like to know whether it would be possible, without resorting to such radical action as mentioned above, to reduce duplications.

It was the board's expectation that the necessary examination of the institutions and study of their needs might be made during the academic year 1914-15.

The importance of the task, together with other engagements of the Commissioner of Education and his subordinates, made it seem unwise to undertake the enterprise within the period contemplated by the board. The Commissioner of Education was convinced that such an investigation should be made with due deliberation. He accordingly informed the board of his inability to assume the direction of it until the following autumn.

On May 15, 1915, a meeting of the board was held at Des Moines, which was attended by the Commissioner of Education and Dean K. C. Babcock, of the University of Illinois, special collaborator of the Bureau of Education. At this meeting formal sanction for the survey of the three State institutions was voted by the board and a memorandum furnished of the questions upon which information and counsel were especially desired. The following resolutions were passed:

*Be it resolved*, That the Iowa State Board of Education hereby requests Hon. P. P. Claxton, Commissioner of Education, to make a survey of the institutions of higher learning under this board, said survey to be made according to the plans suggested by the commissioner, who is hereby authorized to

employ such assistance as he deems necessary, the amount of compensation for such assistants to be agreed upon by the commissioner and the board; and

*Be it further resolved*, That the president of the Iowa State Board of Education and the finance committee be authorized to represent the board in all matters relating to the survey; and that the commissioner be requested to make a report of said survey, to the State board of education, not later than March 1st, 1916.

In its memorandum to the commissioner, the board requested that inquiry be made into the following matters:

1. The duplication in courses in education and psychology between the State university and the college of agriculture and mechanic arts.

2. The extent to which courses in liberal arts are offered at the Iowa State College of Agriculture and Mechanic Arts.

3. The advisability of giving courses in journalism at the State college of agriculture and mechanic arts and the desirability of establishing a school of journalism, with a recommendation as to its location.

4. The status of graduate work at each of the three State institutions, with the expression of an opinion by the investigators as to the possibilities of preventing duplication in this department.

5. The feasibility of consolidating the extension work of the three State-supported institutions.

6. The adequacy of the buildings, and the economy exercised in their use, at the State university, the State college of agriculture and mechanic arts, and the State teachers college. Specifically the opinion of the investigators was requested as to whether a general library and auditorium, or a botany and geology building, should be provided at the State university within the next biennium.

7. The best avenues of expansion of the State university and the State college of agriculture and mechanic arts, with special reference to the advisability of adding new colleges or departments to meet present or future educational needs of the State. The investigators were asked especially for a recommendation concerning the establishment of a college of commerce.

The Commissioner of Education believed that such an inquiry could best be undertaken by a group of persons whose training and experience would fit them to deal with general administrative problems in higher education in a constructive way, and who as individuals might respectively bring special knowledge to bear upon the definite questions raised in the board's memorandum. He therefore appointed, with the approval of the State board of education, the following persons to act as a survey commission:

Dr. James R. Angell, dean of the faculties of liberal arts, literature, and science of the University of Chicago.

Dr. Kendric C. Babcock, dean of the college of arts and sciences of the University of Illinois.

**Dr. Liberty H. Bailey**, formerly director of the New York State College of Agriculture.

**Mrs. Henrietta W. Calvin**, specialist in home economics, Bureau of Education.

**Dr. Hollis Godfrey**, president of Drexel Institute, Philadelphia (consulting member).

**Dr. Raymond M. Hughes**, president of Miami University.

**Dr. Samuel P. Capen**, specialist in higher education, Bureau of Education (chairman).

The commission was organized in July. During the latter part of the summer certain of its members devoted themselves to the study of the printed material bearing upon the Iowa situation. The Bureau of Education furnished summaries of various documents and statistical compilations, which were circulated among the members of the commission.

The commission met on the 6th of October in the office of the Commissioner of Education at Washington and outlined the plan of the survey. In addition to the questions raised by the board of education in the memorandum already mentioned, it was determined to study with some care certain phases of administrative efficiency, especially those relating to the amount of teaching carried by members of the faculty, the size of classes, the standards of admission and promotion in the three institutions and their enforcement, and the machinery of general administration. Sanction for this extension of the field of the inquiry was found in the statement presented by the board to the Commissioner of Education in connection with its original invitation to him (mentioned in the first paragraph of this introduction) to undertake the survey. As essential to a proper estimate of the present status and future development of the State-supported institutions, the commission decided to consider the whole field of higher education in Iowa. The several topics to be studied were apportioned to subcommittees of the commission, the appointments to these subcommittees being based upon what was felt to be the peculiar aptitude of each member of the commission developed through previous administrative or teaching experience.

Before proceeding to study the institutions on the ground, the commission issued through the Bureau of Education detailed inquiries to the presidents, registrars, deans, and directors of the departments having to do with the questions under investigation. The material thus collected was summarized in part at the Bureau of Education and in part at the offices of the members of the commission who are not connected with the bureau.

The Bureau of Education also prepared a letter of inquiry concerning the educational needs of the State, which, through the co-operation of the State board of education, was sent to presidents

of chambers of commerce, heads of granges, newspaper editors, superintendents of schools, and certain other citizens of distinction. One hundred and forty-one replies were received. The text of the letter follows:

DEPARTMENT OF THE INTERIOR,  
BUREAU OF EDUCATION,  
*Washington, October 18, 1915.*

MY DEAR SIR: At the request of the Iowa State Board of Education the United States Commissioner of Education has appointed a survey commission to make a report upon the conditions and needs of the three State-supported institutions of higher education in the State of Iowa.

It would be of great assistance to the commission to learn from representative citizens and from influential organizations the opinion of the State regarding the efficiency of organization and management of these institutions, the wisdom of their educational policies, the possible avenues of waste through unnecessary duplication, and the most profitable lines for their future development. I therefore take the liberty of asking you to address to me, for the benefit of the commission, a brief statement which will cover the following points:

1. In your judgment is each of the three higher institutions occupying fully and exclusively the sphere which properly belongs to it?

2. Are there general defects in policy or management of any one of the institutions which have prevented its proper development or disturbed the balance which would prevail between three State schools founded for three distinct purposes?

3. Do you think it desirable to maintain the State institutions of higher education on a sound and generous basis, providing from time to time for their physical expansion to keep pace with the increasing complexity of higher education and with the possible growth of the State?

4. Would you suggest any new activities, directly or indirectly, for the benefit of the people of the State which any one of the institutions should take up?

5. In your opinion what occupations and industries promise to be most important to Iowa in the near future? Is there already ample provision for training in these lines; or should the State-supported higher institutions give special attention to the development of training in some of them?

The commission desires the frankest expression of opinion on these subjects and on any others that you may care to discuss. Your communication will be regarded as strictly confidential.

May I urge you to reply in the inclosed penalty envelope not later than November 1st.

Sincerely, yours,

P. P. CLAXTON, *Commissioner.*

In issuing the letter the commission had two ends in view. First, it desired to ascertain the attitude of leading citizens of the State toward the State's higher institutions, to construct for itself the atmospheric setting of these institutions. Second, it wished to secure the opinion of those citizens of Iowa best informed and best qualified to speak concerning the probable future development of the State and the new or enlarged educational facilities which this development might demand. Both of these purposes were achieved. Most of the replies were conscientiously prepared. Taken together, they

have not only cast much light on the whole higher educational situation, but they have revealed in a striking way the spirit of the State. A few of the replies are truly notable documents.

The period from November 8th to November 19th was devoted by the commission to visiting the institutions. President Godfrey was represented in this part of the work by Mr. H. T. Murray, of Drexel Institute. The commission spent four days at Iowa City, two at Cedar Falls, and five at Ames. The procedure during these visits was in brief as follows:

After a preliminary view of the grounds and buildings the members of the commission separated and individually or in groups of two interviewed the principal officers of each institution, including as many heads of departments as possible. Certain of the members examined with care the educational and financial records and all documents relating to the use of buildings. At the State university and the State college of agriculture and mechanic arts it held hearings attended by the presidents, deans, and certain heads of departments in these institutions. At the State teachers college it held a hearing attended by the president and the head of the department of education, who is also the director of study-center work. A stenographic report of each of these hearings was made and a copy given to the president of the institution concerned.

On the 17th of November the commission had an audience with Gov. Clarke, discussing with him the more important features of the educational situation. Subsequently the members called upon Supt. Deyoe and obtained from him a statement of the relations between the department of public instruction and the administration of the higher institutions of the State.

On the 18th of November the commission met with the State board of education in Des Moines and discussed certain of its observations and the scope of its report. The members pointed out to the board that, in their opinion, the commission should be allowed to exceed the definite limits originally laid down and to take up in its report other matters than those mentioned in the memorandum presented to the Commissioner of Education in May. While this memorandum had served thus far as a guide for the commission's inquiries and deliberations, nevertheless other issues had constantly obtruded themselves upon the attention of the commission—issues which the members had come to believe were fundamental to the situation, and which should be taken into account, if the report were to have any value. The board was convinced by the discussion that, to render the best service, the commission should be free to treat any parts of the educational situation in Iowa that might be necessary.



In accordance with this understanding, the commission has ventured upon a general consideration of the question of duplication. It was felt that recommendations could not consistently be made regarding the prevention of duplication in certain specified lines, particularly in the field of graduate work, without account being taken, at the same time, of the whole extensive area of duplication. The effort has been to show that almost all cases of duplication are symptoms of the same organic defect, and that these symptoms can not be permanently remedied by a series of small, palliative measures, but only by action designed to remove the defect itself. Certain principles are proposed which it is believed will, if applied, achieve the desired result. The commission is desirous of having the fact distinctly understood, however, that this wider discussion is undertaken wholly on the commission's own initiative, and that the consent of the board to the embodiment of it in the report was obtained only after the commission's investigations were practically finished. This statement is made in order that the position of the board in the matter may not be misconstrued.

The commission has not attempted to go into past institutional difficulties or to investigate questions of legality. The members have considered it their duty to judge educational conditions as they found them, to determine the status of each institution as now developed, and to recommend policies and administrative readjustments which they believe to be right in principle, which have the sanction of practice in other progressive States, and which the commission thinks will solve Iowa's most vexed educational difficulties.

To restore and preserve peace between the State higher schools, to facilitate a harmonious evolution of the State's higher educational system and of each of its parts—these are the ends which the State itself seeks. They are the ends which the commission has held constantly in view. If the commission's advice seems to the board and to the people of Iowa worth adopting, and if it is found that existing laws interfere with such adoption, the remedy is to change the laws; but the commission offers no definite recommendations as to legislation.

On the 19th of November the commission disbanded in Des Moines, two of its members visiting before their return certain of the officials of privately supported higher institutions in the State and three high schools of different types. The composition of the report, to which each member contributed one or more sections, occupied the following eight weeks. A brief of the findings of fact upon which each of the sections of the report was based was sent to the officers of each of the institutions with the request that any inaccuracies of statement be corrected. The facts, therefore, upon which the final

report of the commission rests have been attested by the persons best qualified to speak concerning them. For the interpretation of these facts, which is its chief business, the commission takes entire responsibility.

The commission met in Washington January 3, 4, and 5, 1916, discussed the final form of the report, and decided upon certain minor revisions.<sup>1</sup> The separate contributions were then edited and combined in a single document by the Bureau of Education.

It will, of course, be apparent to any student of education that the survey does not cover all matters of interest and importance relating to the management of the State higher institutions. Departmental organization, for instance, receives very limited treatment. The only phase of student life touched upon is the housing of women students. No attempt was made to estimate the quality of classroom instruction or the professional equipment and standing of members of the three faculties. Indeed, there are a score of topics which would doubtless offer profitable fields for investigation which the commission did not consider. Some of these are mentioned later (see pp. 112, 124). Several others upon which the commission gathered extensive data are not included in this report. The contents of the report, and in a general way the commission's investigations, were determined by two considerations. The first of these was Iowa's complex administrative problem, the problem of organizing the component parts of its higher educational system so that they will work cooperatively, harmoniously, without mutual interference, and with the minimum of waste for the common welfare of the State. The second was the board's memorandum, which raised certain definite questions upon which advice was desired. The commission now reports on each of these questions, although it has thought best to discuss them in a different order from that suggested by the board.

The commission takes this opportunity to record its grateful recognition of the courtesy and cordiality with which it has everywhere been met. Not only the members of the board of education and the finance committee, but also all the officials with whom it came in contact at each of the three institutions have manifested an eagerness to cooperate and a keen desire to spare it trouble or delay. The burden imposed by some of the commission's inquiries has been heavier than would probably be guessed by those not familiar with educational investigations. The principal weight of it has fallen on the recording and reporting officers, yet these officers have in every case gathered the information requested promptly and cheerfully. The frank and friendly spirit in which all three faculties have re-

<sup>1</sup> It is worth recording that the commission has never had a divided vote. Every recommendation in the report has been carried unanimously.

ceived the commission has transformed what might have been an arduous though interesting task into a delightful experience upon which every member of the commission will look back with satisfaction.

On February 15 and 16 the chairman and two other members of the commission met the State board of education in Des Moines and submitted a preliminary draft of the report. The purpose of this conference was to determine whether there appeared in the report any errors in statement of fact concerning those matters of which the board has special knowledge. A few minor changes in the phrasing of portions of the report were made as the result of the meeting, but no changes in the substance of the recommendations. No recommendations were added and none were eliminated.

On February 23 the report was submitted to the Commissioner of Education. As the result of a conference between him and two members of the commission on February 26 one recommendation was slightly modified.

On February 28 the chairman and two members of the commission met with the presidents of the three institutions in Chicago and put before them the same preliminary draft of the report which had been presented to the State board of education. The purpose of this conference was similar to that of the meeting in Des Moines on the 15th and 16th of the month. The commission wished to be sure that no misstatements of fact remained through inadvertence in the document. During the course of the conference the presidents were informed of the changes in phraseology adopted as the result of the earlier conference. In all cases these changes met with their approval. The presidents in turn suggested certain other modifications not affecting the structure of the report, which the commission was ready to adopt. In addition, it appeared that certain minor recommendations relating to the provisions for physical training for women at the State teachers college were based upon an erroneous conception of the actual conditions. These, together with the discussion relating to them in the body of the report, were eliminated.

On March 17, after the changes mentioned had been reported to the other members of the commission and had received their approval, the manuscript of the report was turned over to the Bureau of Education for publication as a bulletin of the bureau. A synopsis of the report was also prepared and, simultaneously with the appearance in print of the full document, was sent to the Iowa State Board of Education for publication in the daily press.

## Chapter I.

### HIGHER EDUCATION IN IOWA, WITH INCIDENTAL REFERENCE TO PUBLIC SECONDARY EDUCATION.

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#### BOARDS AND STATE AUTHORITIES.

Control of public higher and secondary education in Iowa is vested in several boards and officials, whose functions are prescribed by act of legislature. These are the State board of education, created in 1909, the finance committee of the State board of education, the State superintendent of public instruction, and the State board of educational examiners. The State superintendent of public instruction is authorized by law to appoint a State inspector of normal training in high schools and private and denominational schools and State inspectors of graded and high schools. The State board of education appoints the State inspector of secondary schools, and cooperates with the institutions under its control in the appointment of a board on secondary school relations.

#### THE STATE BOARD OF EDUCATION.

The State board of education consists of nine members appointed by the governor for terms of six years and serving without compensation, save for a small per diem to cover the expenses of travel. It is charged with the government of the State university, the college of agriculture and mechanic arts, the teachers college, and the school for the blind, and its powers extend to the appointment of all officers and employees of these institutions and the fixing of their salaries. It directs the expenditure of all State money appropriated to the institutions, and submits biennially to the legislature estimates of appropriations needed for their future support.

#### FINANCE COMMITTEE OF THE STATE BOARD OF EDUCATION.

The board is assisted in its management of the State higher institutions by a finance committee of three, appointed by the board itself from outside its membership, which performs the functions of an executive committee of the board. The powers and duties of the finance committee are only vaguely defined in the act authorizing its appointment. Its members receive a salary of \$3,500 a year each, and are expected to devote all their time to duties assigned them in connection with the higher institutions. They are required to visit each institution each month and familiarize themselves with its work. The secretary of the committee acts as secretary of the board.

## THE INSPECTOR OF SECONDARY SCHOOLS.

Shortly after its creation in 1909, the State board of education established the office of inspector of secondary schools. This official continues under the direction of the board the practice carried on for some years previously by the university. He is charged with the duty of visiting such high schools in the State as desire to be accredited<sup>1</sup> by the State higher institutions, and passes upon their equipment and standards.

## THE BOARD OF SECONDARY SCHOOL RELATIONS.

The inspector of secondary schools is chairman of the board on secondary-school relations, consisting, besides himself and his assistants, of a member of the faculty of each of the three State higher institutions appointed by the president of the institution and approved by the State board of education. The board on secondary-school relations considers and submits to the faculties of the three institutions recommendations on all matters respecting the standards to govern the accrediting of schools. These recommendations become operative when approved by the three faculty bodies.<sup>2</sup>

## STATE SUPERINTENDENT OF PUBLIC INSTRUCTION.

The State superintendent of public instruction, who presides over the department of public instruction, is appointed by the governor for a term of four years and receives a salary of \$4,000. This official has general supervision and control over the rural, graded, and high schools of the State and over all other State and public schools, except those under the direction of the State board of education or the State board of control.<sup>3</sup> Among his legally prescribed duties are the classification of the various public schools and the formulation of suitable courses of study for them. As it relates to the high schools, this classification is especially important, for on it depends the right of three types of schools to claim State or district subsidies. Children of rural sections which do not maintain high schools may attend high schools in neighboring districts, the home district paying their tuition at the rate of \$3.50 per month. To collect this tuition

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<sup>1</sup> An accredited school is one whose standards and equipment have been approved by the agents of a higher institution (generally the State university) and whose graduates are accepted for entrance by that institution without examination.

<sup>2</sup> In 1909 the State board of education appointed a committee of 15, representing the faculties of the three State higher institutions, to agree upon a common basis for the relationship between the public high schools and the State institutions. Upon recommendation of this committee, uniform entrance requirements were adopted for similar courses at all three institutions, and it was agreed that no one of the institutions should change its entrance requirements without notice to the others.

<sup>3</sup> This body has charge of the institutions for the defective, delinquent, and invalided.

for outside pupils, a high school must be approved by the State department of public instruction. State aid to the amount of \$750 per annum is granted to high schools which maintain courses for the training of rural teachers satisfactory to the State superintendent of public instruction. The same amount is also granted to consolidated schools offering courses in agriculture, domestic science, and manual training which are approved by the State superintendent of public instruction.

#### INSPECTORS OF THE STATE DEPARTMENT OF PUBLIC INSTRUCTION.

To assist him in determining the eligibility of these three classes of schools for approval and to aid in the general work of supervision, the State superintendent of public instruction appoints, under the law, an inspector of normal training in high schools and private and denominational schools, also one and not to exceed three inspectors of graded and high schools.

#### STATE BOARD OF EDUCATIONAL EXAMINERS.

The State board of educational examiners controls the certification of teachers. It is composed of the State superintendent of public instruction, who acts as chairman, the president of the university, the president of the State teachers' college, and two other persons appointed by the governor for terms of four years. The acts defining the powers and functions of this board specify in some detail the procedure to be followed in the issuance of different classes of teachers' certificates. The board is authorized to accept graduation from regular collegiate courses in the State higher institutions and other institutions within and without the State judged of equal rank, as evidence that a teacher possesses the scholarship and professional fitness for a State certificate. For a first-class certificate, however, collegiate courses amounting to 14 hours in education and 6 hours in psychology are required.

#### SECONDARY EDUCATION IN IOWA.

The population of Iowa was 2,231,853 in 1900, and 2,221,755 in 1914. In the interval it has risen slightly and dropped again. Reports made to the Bureau of Education showed that there were 51,828 pupils enrolled in public and private high schools and in the preparatory departments connected with higher institutions in 1914. This represents a gain of approximately 18,000 in 14 years, without any gain—indeed in the face of a slight loss—in the population.

The rate of increase in secondary-school enrollment has also been substantially constant throughout the period. These facts are ex-

hibited graphically in the accompanying diagram (diagram 1), which shows the curve of secondary-school enrollment from 1895 to 1914 applied to the curve of population. All but a small portion of this

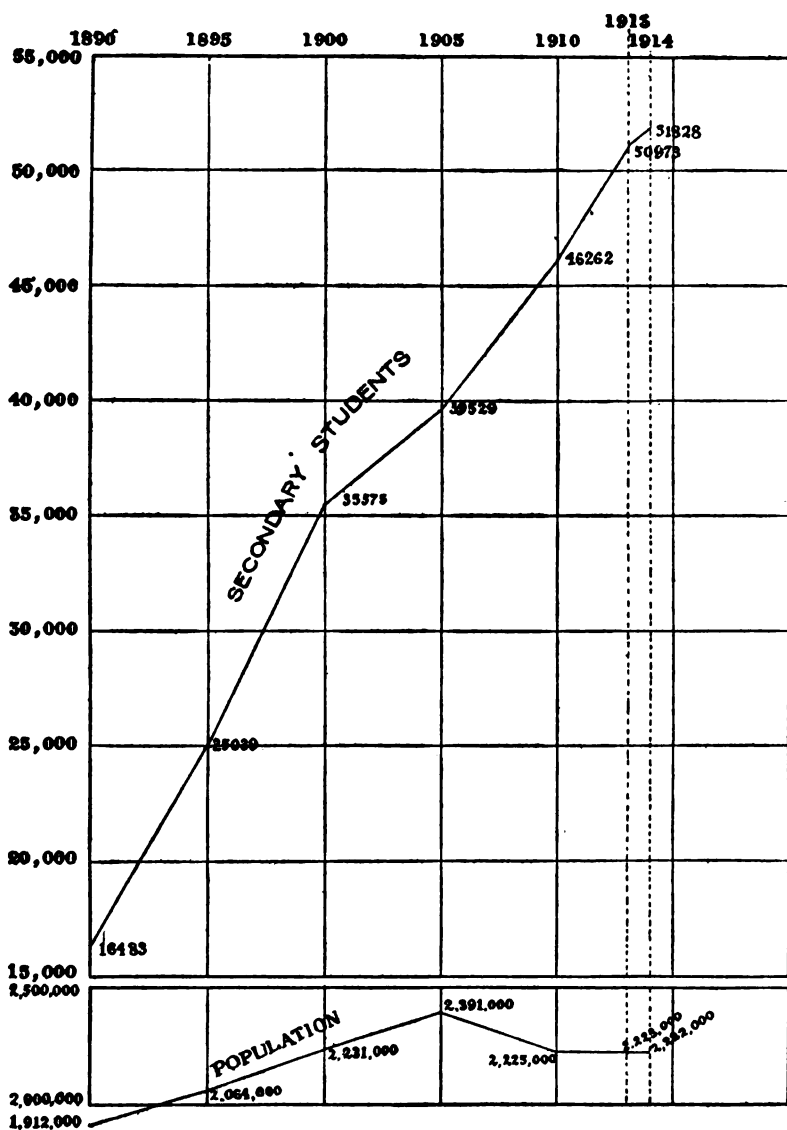


DIAGRAM 1.—Secondary students and population.

increased enrollment has occurred in the public high schools. In 1900, for instance, 13 per cent of the secondary-school pupils were in private secondary schools or the preparatory departments of

colleges; in 1914 only 11.5 per cent were in other than public secondary schools, the gain in enrollment during the 14 years being but 996.

It is also interesting to note that during the period from 1900 to 1914 there was a slight gain in the relative number of students in the graduating classes of secondary schools. In 1900, 12.9 per cent of

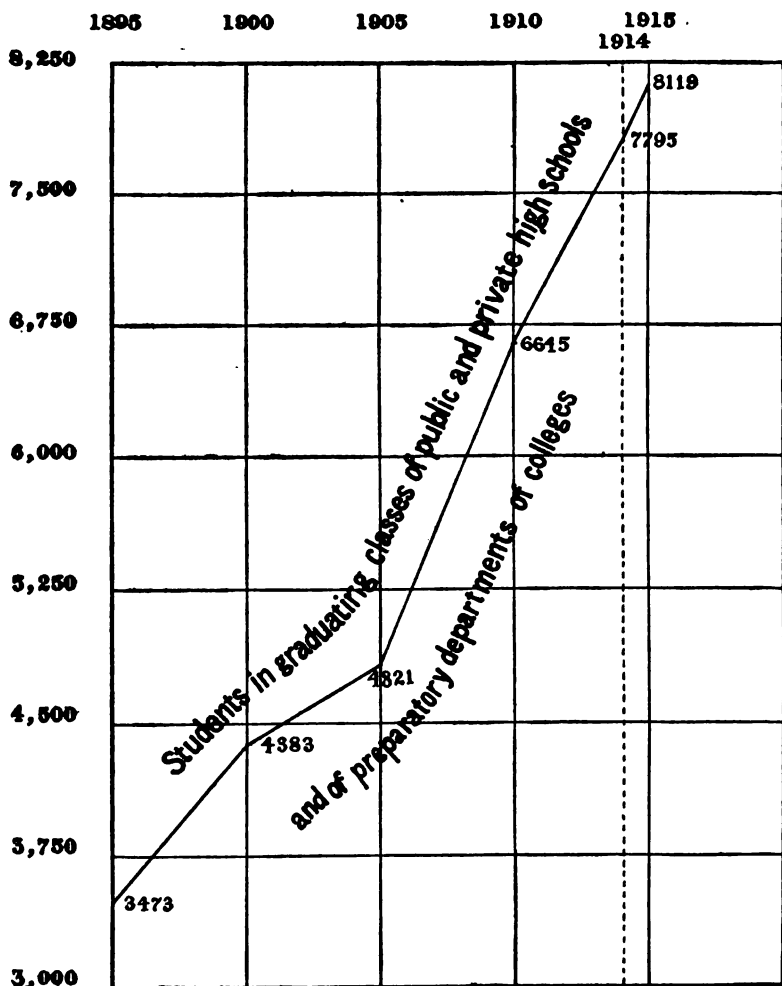


DIAGRAM 2.—Graduates of secondary schools.

the total secondary-school enrollment was in the senior year. In 1914 the percentage was 14.2. The curve illustrating the numerical increase in students in the graduating classes of secondary schools is shown in diagram 2.



The increase in public secondary education is not phenomenal.<sup>1</sup> Indeed the appended table (Table 1) indicates that a number of other States have outstripped Iowa in the rate of gain. Those States were selected for inclusion in the table which were known to have made considerable progress in secondary education in the past 15 years. But Iowa has an exceedingly large proportion of the total population receiving secondary education. Only one State—Utah—reports a greater percentage of the total population in secondary schools. Although the slight flattening of the curve for the past two or three years in diagram 1 indicates that the rate of growth of Iowa secondary schools is now a little slower, nevertheless, it appears that Iowa must contemplate the likelihood of having a much larger percentage of its total population in secondary schools in the future and of being called upon to spend yet greater sums for this branch of public education. Educationally advanced as the State is in comparison with many others, it still falls far short of realizing the ideal cherished not only by educators, but by most intelligent citizens, namely, the provision of adequate facilities for suitable secondary education for every child of school age.

TABLE 1.—Percentage of change in population, school population, and secondary enrollment in certain States from 1895 to 1914.

[Figures in *italic* indicate percentage of loss; other figures, percentage of gain.]

Years.	Iowa.			Georgia.			North Carolina.			Tennessee.			Illinois.		
	Population.	School population.	Secondary enrollment.	Population.	School population.	Secondary enrollment.	Population.	School population.	Secondary enrollment.	Population.	School population.	Secondary enrollment.	Population.	School population.	Secondary enrollment.
1895-1900 .....	8.1	6.4	34.7	13.4	13.4	7.8	10.2	10.2	12.0	8.8	10.7	8.5	9.9	9.9	31.2
1900-1905 .....	7.2	2.8	11.1	8.6	2.0	2.0	7.2	1.0	5.6	6.9	16.9	16.9	10.3	2.2	19.8
1905-1910 .....	7.0	7.6	17.0	8.5	2.4	2.4	8.6	2.1	54.6	1.3	1.3	51.6	2.0	2.2	32.7
1910-1914 .....	.1	7.8	12.3	6.4	6.2	28.2	6.0	10.4	35.7	2.8	2.8	22.1	6.2	4.5	17.6

Years.	Minnesota.			Michigan.			Washington.			California.			Utah.		
	Population.	School population.	Secondary enrollment.	Population.	School population.	Secondary enrollment.	Population.	School population.	Secondary enrollment.	Population.	School population.	Secondary enrollment.	Population.	School population.	Secondary enrollment.
1895-1900 .....	7.7	7.7	33.9	6.4	7.4	27.3	9.1	0.8	65.1	6.8	6.9	32.4	4.5	4.5	33.3
1900-1905 .....	12.6	14.2	41.3	7.3	4.5	16.1	15.5	39.3	97.4	9.2	5.1	65.8	11.9	12.4	32.4
1905-1910 .....	5.3	5.8	45.0	9.9	9.7	20.1	90.2	70.5	111.7	46.7	45.9	46.0	20.5	20.6	36.9
1910-1914 .....	6.7	1.8	32.2	5.9	3.5	25.5	23.2	19.5	36.0	16.0	.73	47.4	11.0	7.1	34.7

<sup>1</sup> For curves of the secondary-school enrollment in Ohio, see Appendix.

TABLE 1.—Percentage of change in population, school population, etc.—Contd.

Years.	Massachusetts.			New York.			Ohio.			Connecticut.			Pennsylvania.		
	Population.	School population.	Secondary enrollment.	Population.	School population.	Secondary enrollment.	Population.	School population.	Secondary enrollment.	Population.	School population.	Secondary enrollment.	Population.	School population.	Secondary enrollment.
1895-1900.....	13.4	13.4	26.7	13.7	13.8	62.4	9.8	9.8	33.5	13.3	13.6	26.2	8.2	8.2	33.4
1900-1905.....	10.2	7.0	24.9	8.7	5.8	21.7	5.8	1.3	16.9	8.9	6.1	14.7	8.3	3.0	28.2
1905-1910.....	9.9	6.9	18.3	15.3	9.4	30.4	8.3	7.6	6.6	12.7	12.5	31.8	11.0	4.5	31.2
1910-1914.....	7.1	10.6	24.1	8.6	8.9	24.2	5.5	10.5	16.1	7.9	8.1	38.4	7.6	8.6	33.8

The public secondary schools, which enrolled in 1914 between 45,000 and 46,000 pupils, may, for purposes of this study, be divided into three classes: Four-year high schools accredited by the State board of education; four-year high schools not accredited by the board, but approved by the State superintendent of public instruction, and high schools approved for less than a four-year course. These are distributed numerically as follows:

Accredited high schools.....	351
Unaccredited, but approved, four-year high schools.....	115
High schools approved for less than a four-year course.....	185

In addition there is probably a small group of unapproved and unaccredited high schools, some of which carry less than a four-year course.<sup>1</sup>

It is apparent that a considerable majority of the high schools of the State are accredited by State higher institutions. The accredited schools enroll also, as might be expected, a disproportionately large number of pupils. The total enrollment in the unaccredited high schools is reported as less than 5,000.<sup>1</sup> About 90 per cent of the public high-school pupils are, therefore, now attending schools equipped to prepare for the best institutions of college grade. Moreover, 70 of the 115 as yet unaccredited four-year high schools are striving to qualify themselves for the accredited relation. Iowa's secondary school system, viewed as a whole, offers a channel between elementary and higher institutions remarkably free from obstruction. It has undoubtedly been one of the most effective agencies in the popularizing of higher education. Indeed, a mere statistical summary shows that the State has gone far toward the creation of a thoroughly coordinated State system of public education.

As has generally been the case throughout the United States, the public institutions which have received least material support and

<sup>1</sup> In spite of repeated requests made to the responsible officials, the commission has been unable to secure any accurate and complete numerical summary of the high-school opportunities in Iowa. It has been obliged to rely for many items on the returns made annually to the Bureau of Education.

the smallest amount of service from educational leaders have been the schools in small rural communities, both the elementary and the high schools. The commission has had no opportunity to study elementary education in Iowa. It has been able to give but slight personal attention to secondary education, but it is credibly informed that the lower schools generally have attained the least satisfactory development of any part of the State system. Next after them are the small country high schools, many of which maintain less than a four-year course and so can not be considered as in line for recognition through accrediting by the State higher institutions. These statements are in the main borne out by the statistical returns made to the Bureau of Education, which show that in elementary education Iowa does not hold the same high relative position as in the field of secondary education.<sup>1</sup>

It was undoubtedly the apparent neglect of an important group of institutions which led the department of public instruction to undertake, in 1914, the task of inspecting the smaller high schools and approving those which were maintaining sincere and honorable standards and serving the peculiar local needs of their respective communities whether these schools were eligible to the accredited relation with the State higher institutions or not. The department approves one, two, three, or four-year high schools which meet the very moderate requirements proposed by it in respect to equipment, organization, curriculum, methods of instruction, and general spirit. But it does not restrict its inspection to unaccredited schools and those ineligible for accrediting; the accredited schools and the schools in the larger places are also included in the sphere of its operations.

There are, then, two different groups of recognized public high schools in Iowa,<sup>2</sup> judged by two different sets of officials using two different standards and responsible to two different authorities. The tendency of the State department of public instruction will naturally be to estimate schools according as they serve local needs, which will be perhaps increasingly vocational. The tendency of the State board's inspectors will quite as naturally be to consider high schools from the point of view of higher institutions. No school can, of course, be accredited unless it is equipped to give instruction in the subjects required for entrance by the State higher institutions.<sup>3</sup>

In this anomalous situation the stage is set for lack of harmony, misunderstanding, and eventual conflict. The fact that these evil results have not yet appeared does not remove the danger. The com-

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<sup>1</sup> For summaries of school population, attendance, length of school year, per cent of total population undergoing elementary education, etc., see Report of the Commissioner of Education, Vol. II, p. 1 et seq., 1914.

<sup>2</sup> Mention is not made here especially of the high schools with normal-training classes.

<sup>3</sup> These entrance requirements might be called conservatively progressive, by no means as liberal as those of some neighboring State institutions, and, on the other hand, more liberal than those of many eastern universities of similar standing.

mission would by no means advocate that all high schools be judged by the same criteria, or that no school be granted the encouragement of recognition by State authority unless it is equipped to prepare for college; but it considers the inspection of the same schools by different authorities offering contrary advice and holding up conflicting ideals of development to be a calamity for the smaller high schools and to exhibit a faulty governmental organization. Later in this report (see p. 125) various readjustments are suggested looking toward the coordination of the two types of inspection and standardization.

### HIGHER EDUCATION IN IOWA.

Iowa is relatively well supplied with opportunities for secondary education. It is almost equally favored with facilities for higher education. The Bureau of Education has for several years listed 25 colleges and universities within the State. Forthcoming lists will add another to this number. In the report of this commission Iowa is therefore credited with 26 institutions of collegiate rank.<sup>1</sup> These are Buena Vista College, Central College, Central Holiness University, Coe College, Cornell College, Des Moines College, Drake University, Dubuque College, Ellsworth College, Graceland College, Grinnell College, Highland Park College, Iowa State College of Agriculture and Mechanic Arts, Iowa State Teachers College, Iowa State University, Iowa Wesleyan College, Leander Clark College, Lenox College, Luther College, Morningside College, Parsons College, Penn College, Simpson College, Tabor College, Upper Iowa University, and Wartburg College. The accompanying maps (maps Nos. 1 and 2) show their locations and the population of the State by counties according to the census figures of 1910.

The population of Iowa is evenly distributed. Not only is there little tendency toward an increase in density around the few larger centers, but there are practically no sparsely populated counties. In comparison with that of most other States, also, the population is remarkably homogeneous, intelligent, and prosperous. It is predominantly agricultural. These facts would of themselves tend to distribute the pull of higher institutions rather evenly over the State, if the institutions were located strategically so as to avail themselves of these favorable conditions. A glance at the maps, however, shows that the colleges and universities are concentrated in the eastern part of the State. Only four are located west of a line drawn north and south to pass just west of Des Moines. Indeed, 16, includ-

<sup>1</sup> To be included in the college list of the Bureau of Education an institution must be authorized to give degrees; must have definite standards of admission; must give at least two years' work of standard college grade, and must have at least 20 students in regular college status.

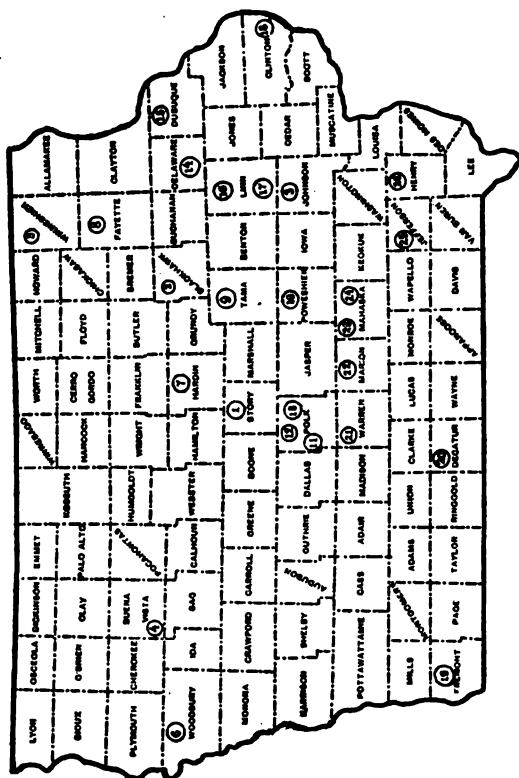
## COLLEGES IN IOWA.

## STATE COLLEGES.

1. Iowa State College of Agriculture and Mechanic Arts, Ames.
2. Iowa State Teachers College, Cedar Falls.
3. State University of Iowa, Iowa City.

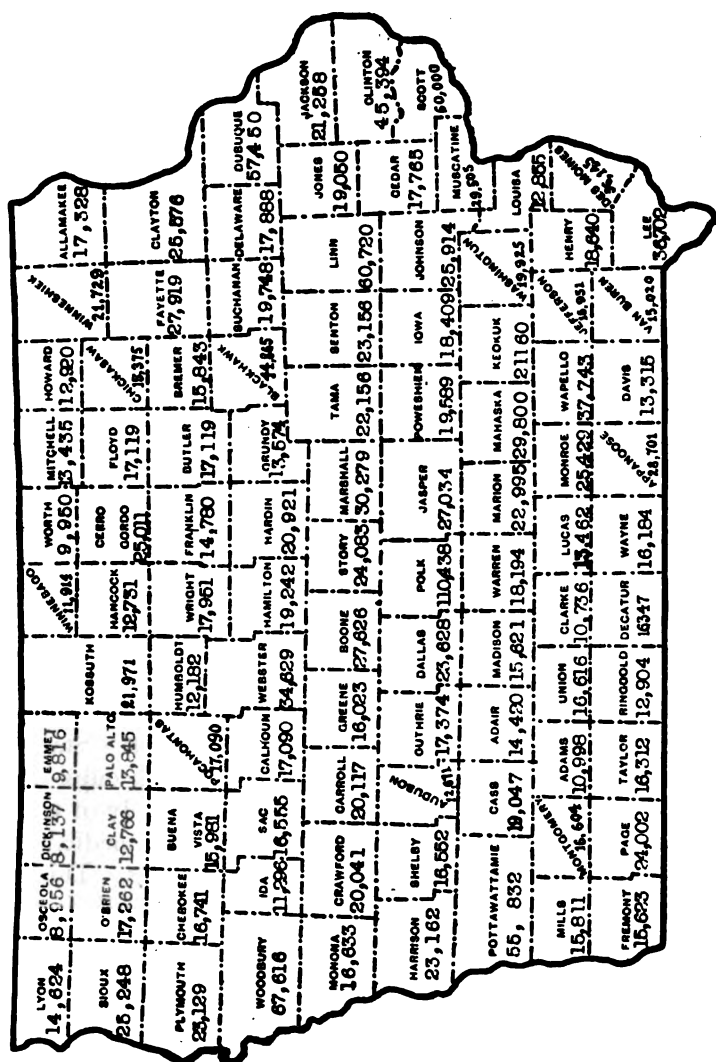
## PRIVATE COLLEGES.

4. Buena Vista College, Storm Lake.
5. Luther College, Decorah.
6. Morningside College, Sioux City.
7. Ellsworth College, Iowa Falls.
8. Upper Iowa University, Fayette.
9. Leander Clark College, Toledo.
10. Grinnell College, Grinnell.
11. Des Moines College, Des Moines.
12. Drake University, Des Moines.
13. Highland Park College, Des Moines.
14. Lenox College, Hopkinton.
15. Dubuque College, Dubuque.
16. Coe College, Cedar Rapids.
17. Cornell College, Mount Vernon.
18. Wartburg College, Clinton.
19. Tabor College, Tabor.
20. Graceland College, Lamoni.
21. Simpson College, Indianola.
22. Central University of Iowa, Pella.
23. Central Hollnes University, University Park.
24. Penn College, Okaloosa.
25. Parsons College, Fairfield.
26. Iowa Wesleyan College, Mount Pleasant.



MAP 1.

Colleges and universities in Iowa. For population by counties, see Map 2, opposite.



## МАР 2.

Population of Iowa by counties (for use in conjunction with Map 1, showing location of colleges and universities).

ing 4 of the largest, are in the southeastern quarter of the State. In other words, the location of Iowa colleges bears slight relation to centers of population. These facts have an important bearing, especially on teacher training, a question discussed later in this report. The somewhat serious geographical handicap which certain of the institutions suffer through the accident of their foundation is hardly offset by the excellent steam and electrical transportation facilities, which reach every corner of the State.<sup>1</sup>

The opportunities for higher education in these colleges and universities in courses leading to degrees may be summarized as follows:

TABLE 2.—*Number of higher institutions.*

Type of institution.	Total number of institutions.	State institutions included.
Colleges of arts and sciences.....	26	3
Schools of theology.....	1	0
Schools of law.....	2	1
Schools of medicine.....	1	1
Schools of homeopathic medicine.....	1	1
Schools of veterinary medicine.....	1	1
Schools of dentistry.....	1	1
Schools of pharmacy.....	2	1
Schools or courses of civil engineering.....	4	2
Schools of engineering (other branches).....	3	2
Schools of agriculture.....	1	1
Schools of music.....	5	2
Schools of education or courses in education preparing for State certificates.....	25	3

Of the 26 institutions, 14 maintain summer schools, 19 have academies (preparatory departments), and 3 others subfreshman or noncollegiate courses;<sup>2</sup> 2 of the latter are State institutions.

Certain interesting facts detach themselves at once from this summary: First, the majority of collegiate institutions in the State have entered the field of professional training in one branch only—education. Second, State institutions have an actual monopoly of training in the professions of medicine, dentistry, veterinary medicine, and agriculture, and a practical monopoly in engineering. Third, the only fields in which two or more State institutions are offering work in the same lines leading to a degree are arts and sciences, engineering, education, and music.

<sup>1</sup> Most of the colleges are old foundations established before the population became stable.

<sup>2</sup> In a State as well supplied with secondary schools as Iowa there appears to be no valid educational excuse for the continued existence of so many academic departments connected with private colleges. For the majority of these institutions this means a division of resources and a probable lowering of scholastic tone. That it is unnecessary in order to get properly trained students is evidenced by the fact that several of the strongest colleges no longer maintain academies. Moreover, only four academies are accredited by the State board of education as qualified to prepare students for the State higher institutions.

With one exception,<sup>1</sup> all the higher institutions of the State were founded before 1895, i. e., before the period of most rapid increase in the number of pupils in secondary schools. Reference to diagram 1 (covering the period from 1890 to 1915) shows that the curve of

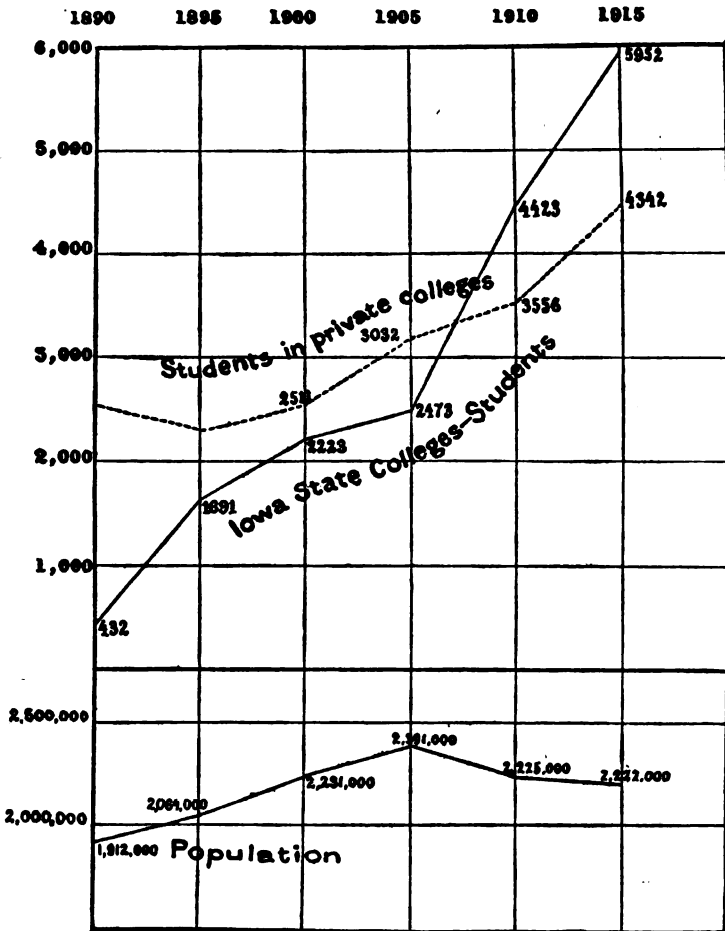


DIAGRAM 3.—Enrollment in State and private colleges, 1890-1915, in relation to population.

NOTE.—In this diagram there were several large variations which seemed to be due to errors in collecting the figures rather than to actual conditions. These points have been omitted in plotting the curve of private colleges: 1908—9,232; 1912—6,413; 1914—9,762.

secondary-school enrollment has the sharpest upward trend from 1895 to 1900. It is interesting to compare with these enrollment figures those of the collegiate institutions during the same period.

<sup>1</sup> Central Holiness University, founded in 1906, and enrolling 41 collegiate students in 1915.

<sup>2</sup> Highland Park College, which was not in the list of collegiate institutions of the Bureau of Education until the present year, is not included in summaries appearing in this chapter.



It appears that there were 2,254<sup>2</sup> students in the collegiate and professional courses (all preparatory and noncollegiate students having been eliminated from the returns) of all the privately-supported institutions in 1895, and 1,691 in the collegiate and professional courses of the State institutions. In 1905 the private higher institutions enrolled 3,032 and the State institutions 2,473. By 1914 the

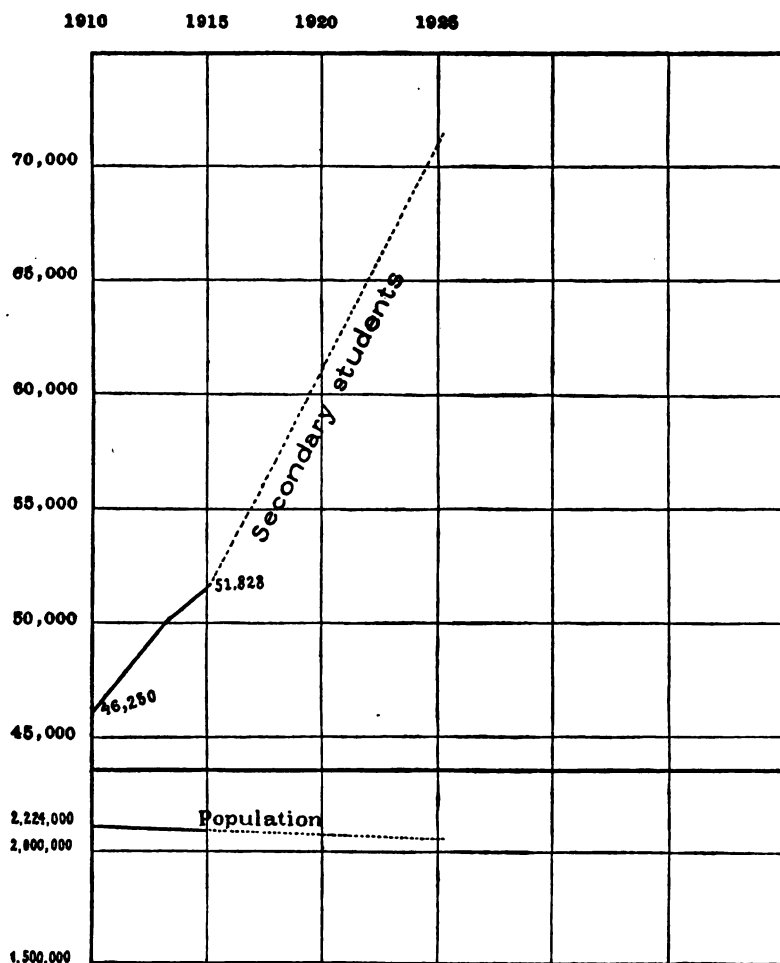


DIAGRAM 4.—Forecast of secondary school enrollment to 1925.

figures had grown to 4,342 for the private colleges, and 5,952 for the State colleges.<sup>1</sup> It appears that the most rapid upward movement

<sup>1</sup> Summer-school students are included in these figures and reduced to approximately a 36 week basis. Figures of the State board are used for State institutions since 1910. But attention is especially called to the fact that the figures on which both these curves and those in the diagrams are based do not include the large group of special, irregular, and noncollegiate students, all of which are reckoned by the higher institutions in their total enrollments.

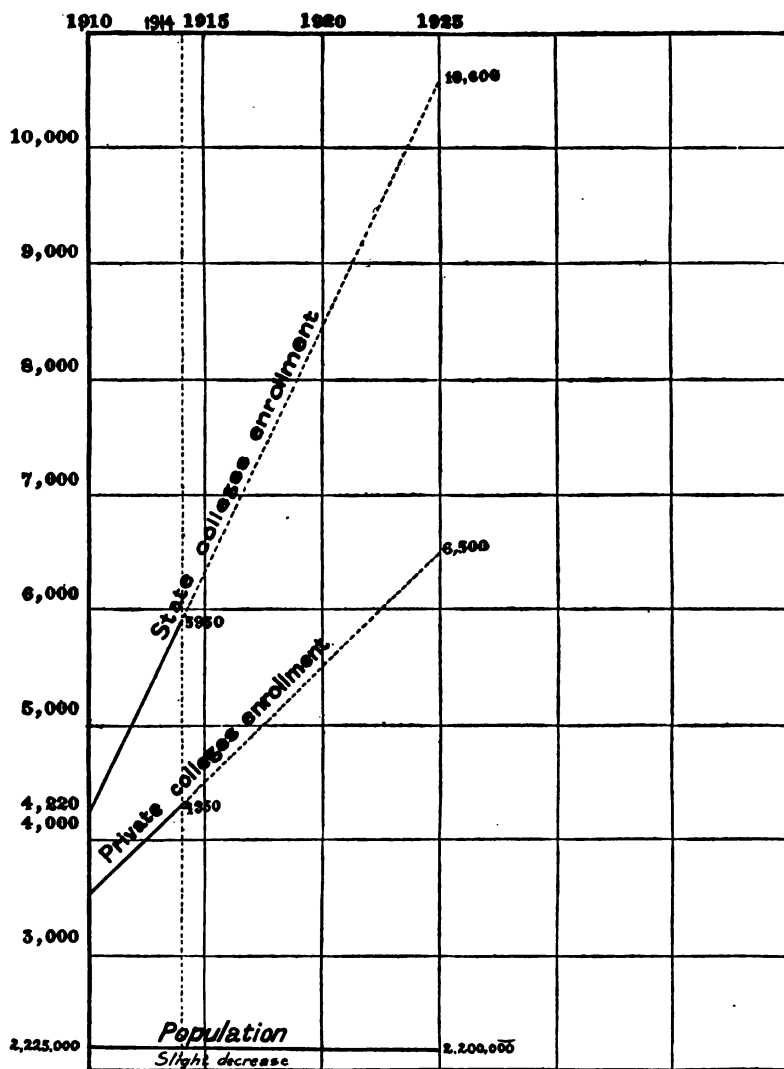


DIAGRAM 5.—Forecast of college enrollment to 1925.

For the enrollment in State colleges and private colleges since 1890, see Diagram 3, p. 27.

in both enrollment curves has taken place since 1905, the sharpest ascent being within the past five years. Both curves have kept close together, although there has been a slight relative gain on the part of the State institutions. Neither shows as yet a tendency to flatten.<sup>1</sup>

In view of these facts, the commission may be warranted in hazarding certain opinions as to the future tendency in the quantitative development of higher education in Iowa. First, the increase in the enrollment of Iowa colleges is likely to go on at approximately the same rate for several years. The reasons for this assumption are: (1) The expansion of collegiate enrollments generally follows a few years behind the growth of secondary-school enrollment, and Iowa's secondary schools have been growing fast for 20 years. (2) Iowa is exceedingly prosperous and places a high value on education, as is shown by the fact that its relative secondary enrollment is next to the highest in the country. (3) In spite of this, nine States and the District of Columbia have a larger percentage of the total population in higher institutions. (4) Its higher institutions through extension activities and the development of vocational courses are now making a particularly strong appeal for patronage.

The second assumption is that without an increase in the population of the State, not now foreseen, the enrollment in higher institutions is likely to become fairly stable in the course of the next two decades, probably increasing slowly each year thereafter, but no longer subject to the rapid annual increases which prove so embarrassing to many administrative officers, and which, in the case of State institutions, cause some apprehension in the minds of legislators.

Third, the privately endowed institutions will probably continue to share the field on more or less even terms with the State institutions. Each type has its distinctive contribution to make; each is strengthened by the presence of the other. But it should not be forgotten that citizens of the State to a large extent pay for both. In the case of the private institutions the taxation is indirect and frequently so distributed in time as to be an inappreciable present burden. But it is the money of the citizens of the State that in the main funds and supports these institutions.

An interesting revelation of what the State may reasonably expect in the way of educational development is found by continuing upward for the next 10 years the curves of secondary and college enrollment. According to this forecast the enrollment for 1925 would be approximately 68,000 in secondary schools, 9,900 in State higher institutions, and 6,500 in private colleges (diagrams 4 and 5).

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<sup>1</sup> Interesting for comparison are similar enrollment curves for Ohio. See Appendix.

Of course, precisely the conditions indicated by these imaginary curves, especially the relative gain of higher over secondary institutions, may not occur, but undoubtedly the tendencies may be thus indicated. The inevitable conclusion is that, if it wishes to maintain its enviable educational position among the States, Iowa must prepare to spend increased sums of public money for higher education for some years to come.

The present relative positions of the privately supported and the State-supported higher institutions may be made clearer if each group is considered separately for a moment.

#### PRIVATELY SUPPORTED COLLEGIATE INSTITUTIONS.

The great majority of privately supported colleges of Iowa were founded and are still maintained by religious denominations. Their denominational affiliations, together with their total collegiate enrollments (excluding summer schools) for the year 1914-15, may be summarized as follows:

Five Methodist.....	1, 350
Three Presbyterian.....	212
Two Baptist.....	288
Two Lutheran.....	168
One Roman Catholic.....	157
One Latter Day Saints.....	24
One Friends.....	166
One Congregationalist.....	119
One United Brethren.....	77
One interdenominational.....	41
Five nonsectarian.....	1, 920

The nonsectarian group contains, with one exception, the three largest institutions.

As has been shown, these privately supported institutions have thus far practically confined themselves to the field of liberal education. They have established courses for the training of high-school teachers, but these courses, while semiprofessional in character and designed to fit for a calling commonly rated as a profession, are for the most part neither so advanced nor so extensive as to constitute a serious excursion into the field of scientific professional and technical education. Indeed, in Iowa, as in most other States, requirements for the high-school teacher's certificate do not demand professional training in the generally accepted sense of the term. The clientele of the privately supported colleges is therefore in the main made up of boys and girls seeking a college education of a liberal or general nature.<sup>2</sup>

<sup>1</sup> Figures of 1913-14.

<sup>2</sup> This statement applies only in part to Highland Park College and Drake University.

College education in institutions strongly denominational in tone, or at least predominantly religious in atmosphere, and of a comparatively small size, is securely entrenched in the regard of large groups of parents. The appeal of such institutions is often stronger than that of State colleges which may possess superior scholarly resources and equipment. The commission does not attempt to weigh the relative advantages of liberal training in the two types of institutions. It merely notes the fact. The patronage of the private college is affected in increasing measure by certain other considerations, however.

The first of these considerations is the ability of the institutions to enlarge their resources. No college can now be successfully run on fees alone. Higher education is becoming more expensive all the time. Appliances are now necessary which were not invented a generation ago. Libraries must be renewed and increased. Salaries are slowly but steadily advancing. To be assured of permanent existence and the power to draw students, a college must possess some endowment. Numerous agencies which study colleges have placed the minimum of productive endowment which an institution must have to insure permanency and efficiency at \$200,000.<sup>1</sup> In the near future even this amount will probably be insufficient. Of the privately supported colleges of Iowa, only 10 have endowment funds exceeding this minimum figure; 4 have no endowment at all. The endowments of the others range from \$25,000 to \$165,000. It is reasonable to expect that some of the institutions without endowment or with less than \$200,000 may find it advantageous to consolidate with others, to become junior colleges, or possibly to devote themselves to less expensive grades of educational work.<sup>2</sup>

The patronage of all but the strongest and best-equipped private colleges, or of those which serve a peculiarly cohesive sect, has been found to be sharply limited also by geographical considerations. Young people are prone to attend a college located in their own State. Moreover, most colleges draw the majority of their students from within a radius of 50 miles. Few institutions obtain any considerable percentage of their enrollments from outside a circle with a radius of 100 miles.<sup>3</sup> Maps prepared by the officers of the Iowa colleges furnish confirmation of this well-recognized truth.<sup>4</sup>

The third factor affecting the enrollment in private colleges is the keen competition for students among the colleges themselves. In the majority of the thickly settled parts of the country—and doubtless in Iowa—the same area is canvassed annually by many institu-

<sup>1</sup> Exception is made of Roman Catholic institutions, whose teachers serve without salary.

<sup>2</sup> Graceland College has already become a junior college.

<sup>3</sup> See General Education Board report 1902-1914, pp. 119 et seq.

<sup>4</sup> For these maps see Appendix, p. 211.

tions. What are thought to be the chief attractions of each are diligently presented to prospective students. The colleges possessing the largest resources and exhibiting the most dynamic institutional life tend inevitably to draw more and more students and so to win an advantage, at least in point of numbers, over their less fortunate or less skillful rivals. In some quarters of the United States inter-institutional competition has already forced a few weaker institutions out of existence or has led to consolidations. Similar results may in course of time occur in Iowa.

The relations of Iowa private colleges to the secondary schools of the State are not in all cases as clearly defined as are those of the State higher institutions to the same schools. Nineteen colleges belong to the Iowa College Association, members of which agree to admit on certificate graduates of only those secondary schools within the State that are accredited by the State board of education. Six of these announce that they admit on certificate the graduates of schools accredited by the State board of education or by the North Central Association of Colleges and Secondary Schools. The other 13 announce that they admit graduates of accredited schools without explaining the term. Indeed, the catalogues of several of these institutions treat the subject of admission by certificate with less definiteness than might be wished. It is assumed, however, that all members of the Iowa College Association have the same standards of admission as the State institutions. The remaining four colleges are somewhat vague in their statements on this point.

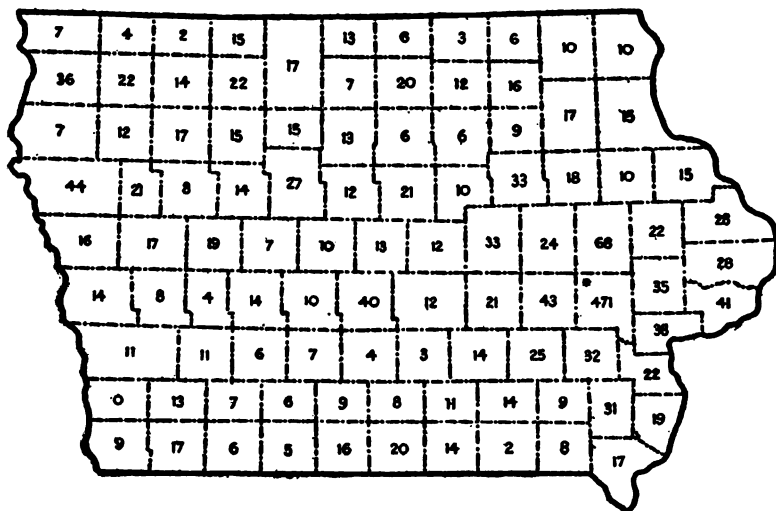
The general impression gained from a study of the catalogues of the private colleges of Iowa is that there are at least two standards, of which the relations of the colleges to the secondary schools may serve as the indices. One, the higher, is the standard set by the State institutions and scrupulously observed by some of the private colleges. The other is something less severe than this.

#### STATE-SUPPORTED INSTITUTIONS.

A few general statements concerning the State-supported institutions, treated as a group by themselves, should be juxtaposed to this discussion of private colleges. The accompanying maps show the distribution of students of the State institutions as to residence among the counties of the State.<sup>1</sup> It is evident that the drawing power of all three State institutions is exerted more evenly over the whole State than is that of any private college. The figures also show that these institutions, as well as the private colleges, attract relatively larger numbers from the territory in their immediate vicinity.

<sup>1</sup> The enrollment maps of the State College of Agriculture and Mechanic Arts and the State Teachers College include also the students in other collegiate courses.

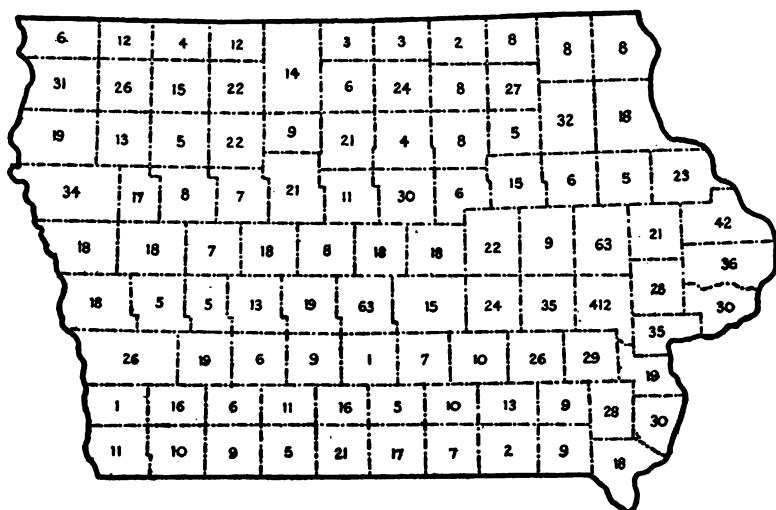
The first relates to the sources of income of the State as against the private institutions. For increases in their permanent incomes private colleges are dependent wholly upon the variable generosity of individual benefactors. That any considerable increase will come can not—except under the operation of a kind of law of probability which appears providentially to govern the affairs of colleges—be counted upon with certainty in advance. State institutions, on the other hand, grow rich in material support with the growth in wealth



**Iowa State University. Enrollment by counties, 1912-13.**

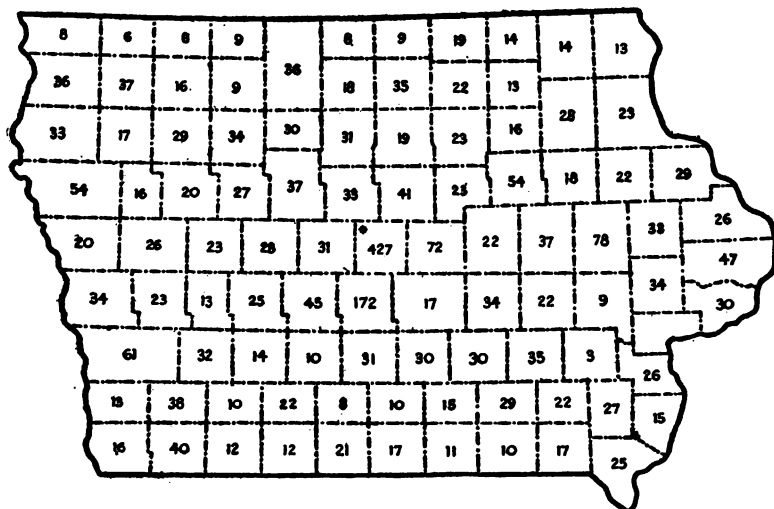
**Total students in the university, 2,255.**

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MAP 4.

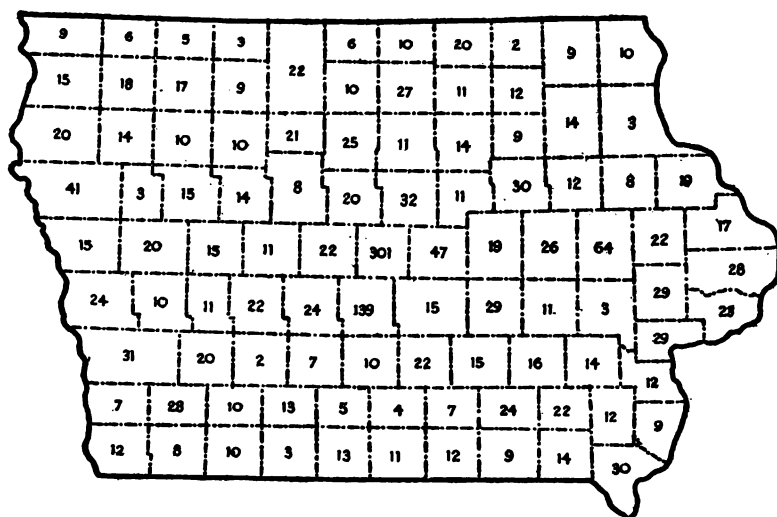
Iowa State University. Enrollment by counties, 1914-15. (First semester.)



MAP 5.

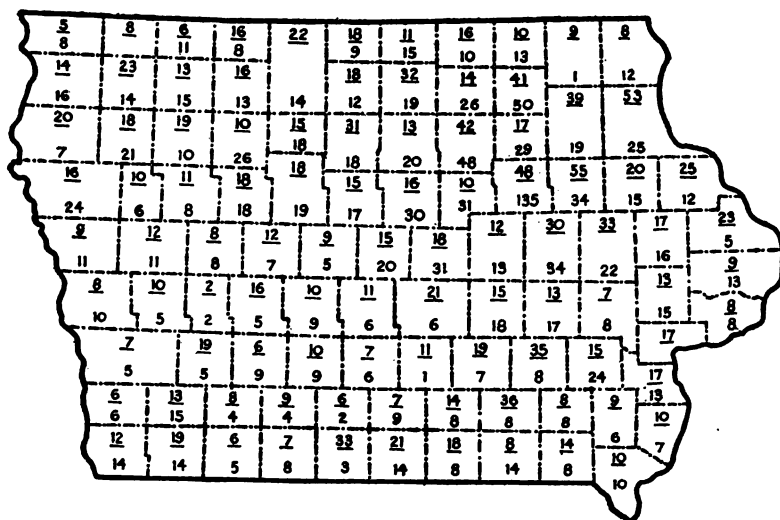
Iowa State College of Agriculture and Mechanic Arts. Enrollment by counties, 1913-14. From other States: Washington, 2; Oregon, 3; California, 13; South Dakota, 26; Minnesota, 60; Nebraska, 51; Kansas, 9; Wisconsin, 10; Illinois, 79; Missouri, 18; Indiana, 17; Kentucky, 11; Ohio, 14; New York, 10; Pennsylvania, 18; other States, 59; foreign countries, 25. Total, 3,458.





MAP 6.

Iowa State College of Agriculture and Mechanic Arts. Enrollment by counties, 1914-15. Total collegiate enrollment, 2,319.



MAP 7.

Iowa State Teachers' College, 1913-14. Enrollment by counties. Underlined figures are for the summer session, 1914. Total summer enrollment (not including 289 students who re-enrolled for the fall, winter, and spring terms of 1914-15), 1,733. Other figures represent regular enrollments, 1914-15; total, 1,769. Total students in all terms for the year, 3,502. The figures for Blackhawk County do not include Cedar Falls city, with 118 in the regular course and 32 in the summer session, nor the Fourth Ward, with 117 in the regular sessions and 38 in the summer course.

From other States: Regular course, 97; summer, 46; from foreign countries, 4.

of Iowa. The State has shown itself unusually generous toward its State institutions. It is rich and growing richer. The commission has also been informed by many representatives of public opinion that there is no desire on the part of the State to curtail the appropriations required by the State institutions, provided only there is no remediable waste in institutional expenditures.

The other fact worth noting here is the actual increase in State appropriations for higher education. Diagrams printed in the Appendix show curves illustrating for Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Montana, Ohio, Oregon, Texas, Washington, and Wisconsin the increases in total State funds appropriated and the increases in the appropriations for State higher institutions.<sup>1</sup> The conditions here shown may be regarded as typical for the prosperous States of the country. The commission points out later in the report that Iowa may probably save some money in the conduct of its institutions, and consequently make a better comparative showing, without adopting a niggardly policy.

The entrance requirements of the State higher institutions are uniform. (See p. 16.) They compare favorably as to quality and quantity of secondary work demanded with those imposed elsewhere in the country by institutions of the highest standing. Moreover, the investigations of the commission indicate that they are in all three institutions conscientiously enforced.

It is believed that this brief presentation of the current conditions of higher education in Iowa will reveal the fact that the State institutions enjoy certain great advantages which private colleges lack and that they are burdened with corresponding responsibilities for leadership and the establishment of standards. The suggestion is also made and will be amplified later that there are certain organic defects in the administrative machinery whereby they are controlled, defects that must hamper their legitimate and harmonious development and that call for immediate remedy. Iowa has a single State university system or a single higher educational enterprise. (Except to avoid possible legal complications, it is not important what term is used to characterize it. Its nature is not altered by the use of any term.) This enterprise is divided into three parts and operated from three centers, but in its general purposes, its area of patronage, its support and its responsibilities, it is a unit. That the State has appreciated this fundamental unity and has desired to promote it is evidenced by the fact that it has placed all three institutions under the control of a single board. Iowa's greatest educational task is to transform this, as yet, almost wholly external and mechanical unity into a real unity of aim supported by mutual friendly cooperation.

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<sup>1</sup> See Appendix, p. 200.

## Chapter II.

EXPENDITURES OF IOWA STATE INSTITUTIONS OF  
HIGHER EDUCATION.

The State board originally sought the assistance of the Commissioner of Education in the preparation of a budget for the next biennium.<sup>1</sup> The commission has interpreted this fact as a mandate to hold the question of costs continually in mind. While, as has already been implied and will be pointed out in detail later, the commission does not regard the fiscal aspects of the problem confronting the board as the most perplexing, nevertheless, the obligation laid upon the board to conduct the institutions under its control with all reasonable economy has been fully appreciated in the inquiry. It is realized that the fiscal test is the ready popular test which will always be applied as an estimate of the success of the board's stewardship. As a means of orientation, therefore, in the study of the three State institutions of higher education, specific discussion begins with an analysis of the expenditures of the institutions for the past two academic years.

The expenditures of different institutions of higher learning differ in many particulars. The forms in which these expenditures are reported differ still more. The commission has made an endeavor to summarize the expenditures of the three State higher institutions of Iowa in a form that would give a somewhat comprehensive and suggestive view of them. As the survey is chiefly concerned with various phases of the educational work of the institutions, the total expenditures for the year are first divided into two main groups: *Educational expenditures* and *extension and service expenditures*. The *educational expenditures* are then divided into three separate categories: *Construction and land*, *special and rotating funds*, and *operating expenditures*.

The category *construction and land* includes expenditures for direct additions to the plant to provide for growth in enrollment, together with outlays for the ordinary furniture of new buildings. *Special and rotating funds* include expenditures from prize funds, boarding and rooming departments, and special funds available only for indicated purposes apart from instruction. These two classes of expenditures are in a certain sense entirely independent of the cost of the operating of the educational plant.

The category *operating expenditures* includes all expenses for the annual maintenance of the institution aside from dormitories and boarding departments. It is further analyzed into *instruction*, *edu-*

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<sup>1</sup> See introduction, p. 7.

*ational equipment and supplies, and general operating expenses.* The distribution of the expenditures of the institutions may be arranged as follows:

Total expenditures.	Educational.	{ Construction and land. Special and rotating funds. Operating expenditures...	{ Instruction. Educational equipment and supplies. General operating expenses.
		Extension and service.	

Of the subdivisions under *operating expenditures*, the first—*instruction*—includes the salaries of the deans, but not those of the president, other purely administrative officers, and librarians. The second, *educational equipment and supplies*, includes, in addition to all funds expended for departmental purposes under faculty control, also the expenditures for books and library supplies. The third, *general operating expenses*, comprises what might be classed as the overhead expenses of the institution, including the salaries of administrative officers, janitors, etc. These expenditures are essential to the main work of instruction, but have no direct relation to it.

From a business point of view, part of the expenditures under the second and third subdivisions of the preceding paragraph might be considered capital account outlays. In a college or university, however, they are rather annual expenses, necessary to keep the institution abreast of the times. They never stop. For example, \$1,000 spent for books can certainly be charged to capital account, as it definitely increases the property of the institution. On the other hand, no matter how much may be spent for books in any one year, more money is required each year thereafter in ever-increasing amounts to meet the new demands of scholarship and the expansion of the field of knowledge. So, in this distribution, all expenses which may be looked forward to by the administration as necessary annual expenses are classed under *operating expenditures*.

In determining the average cost per student, the average number of students in attendance during the college year September to June is taken. It is to be noted that there is a distinction between the enrollment as ordinarily stated in a catalogue and the figures here used. The usual catalogue statement of enrollment includes all students who have attended the institution during any part of the year of 12 months. Often the summer enrollment is large. Generally the number of students in actual attendance rises from the opening of college in September for about two weeks to a maximum, and then declines because of withdrawals until the close of the term. The second term or semester usually opens with increased numbers, again reaching a maximum shortly after the opening day, and then gradually declining until the close of the year. The commission is of the opinion that an average of the largest

attendance in the two semesters gives the best average attendance available. This point may be illustrated with figures for the State college, 1914-15:

Catalogue enrollment .....	3, 629
Attendance Oct. 1, 1914.....	2, 522
Attendance Feb. 15, 1915.....	2, 467
Average attendance .....	2, 495

Attention is called to the following table, showing the per capita cost of the three institutions for 1913-14 and 1914-15:

TABLE 3.—*Per capita cost of three institutions in 1913-14 and 1914-15.*

Items of expenditure.	State university.	State college.	Teachers college.
<i>In 1913-14.</i>			
Instruction.....	\$155.00	\$134.00	\$93.50
Educational equipment and supplies.....	41.50	63.50	17.00
General operating expenses.....	78.50	72.50	57.50
Total.....	275.00	270.00	168.00
<i>In 1914-15.</i>			
Instruction.....	160.00	141.00	97.50
Educational equipment and supplies.....	42.50	69.00	14.00
General operating expenses.....	72.00	61.00	58.50
Total.....	274.50	271.00	170.00

The items used in these computations comprise the total cash outlay per student under the general head of *operating expenditures*, except that the cost of instruction for the summer session has been omitted.<sup>1</sup> In other words, for the purposes of this table the *operating expenditures* taken are made up of the sum of the total *educational supplies and equipment*, the total *general operating expenses*, and the *cost of instruction* minus the expenditures for the summer term. Moreover, no interest on investment is included. The *average attendance*, determined in the way described above and not the enrollment, has been taken as the divisor to obtain the per capita cost. The method is further exhibited in the summary tables on pages 42 to 47:<sup>2</sup>

The commission points out that each student costs the institution from \$170 to \$275 a year. A small part of this expense is met by the tuition and fees paid by the student, but it is not far from the truth to say that each student in actual attendance for the college year costs \$250. With approximately 7,000 students enrolled in 1915-16, this amounts to about \$1,750,000 in operating expenses for the college year.

<sup>1</sup> It should be noted that, while the figures appearing in the three columns are comparable with each other, they are not necessarily comparable with figures for per capita cost reported by any other institution.

<sup>2</sup> For detail tables from which these summaries have been compiled see Appendix, pp. 184-193.

While this is a large expenditure, it is a most wise one, if the students served are earnest and capable and improve to the utmost the advantages afforded them. Indeed, every student enrolled accepts a trust and is under obligations to justify the outlay of public funds made in his behalf. But the officials in charge of the institutions can not fail to bear in mind the fact that each student carries a very definite cost to the State, not only for operating expenses, but also, as will be shown later, for buildings. The annual rate of increase of student registration is already large and will under natural conditions grow larger, as it should. Until the State is ready to care properly for the students now in attendance upon its higher institutions the wisdom of certain forms of competitive advertising at present in vogue is perhaps problematic. The time when the State college and the State university were unknown to the people is past. They need only to make formal announcement of their offerings and give reasonable publicity to their work to secure as rapid increases in their respective enrollments as can be adequately cared for. Possibly the board should also consider in this connection the advisability of discontinuing subcollegiate work as the number of collegiate students increases; but this question is discussed more fully in another place. (See p. 88.)

In conclusion it may be stated that the present cost per student is low rather than high. It should be increased rather than decreased. In fact, a growth in numbers without a corresponding growth in support will result in weakening the institutions.







## Summary Table of Expenditures, Iowa State College of Agriculture and Mechanic Arts, 1913-14.

Iowa State College of Agriculture and Mechanic Arts, Total expenditures, 1913-14.	Educational.		Construction..... \$317,978.63			
	\$1,037,833.47.		Special funds.....	95,846.55	Educational equip- ment and supplies.	\$144,974.02
			Operating expenses.	624,008.29	Instruction.....	313,158.01
					General operating expenses.....	165,876.26
\$1,461,684.25.	Extension and Industrial service.		Construction.....	42,874.10		
			Special funds.....	142,444.59	Experimental work	145,544.09
	\$424,850.78.		Operating expenses.	239,532.09	Extension work....	93,988.00
Per capita cost for 2,279 students, September-June, 1913-14. Oper- ating expenses, exclusive of sum- mer term, \$270.	Total.		Per capita.		Enrollment:	
	Instruction.....	\$305,804.07	\$134.00		First semester.....	2,292
	Educational equip- ment and supplies..	144,974.02	63.50		Second semester.....	2,267
	General operating ex- penses.....	165,876.26	72.50		Total.....	4,559
		616,654.35	270.00		Average.....	2,279

Summary Table of Expenditures, Iowa State College of Agriculture and the Mechanic Arts, 1914-15.

Iowa State College of Agriculture and Mechanic Arts. Total expenditures, 1914-15.	Educational.		Instruction, college year.		Instruction, summer term.	
	\$1,150,081.67.					
\$1,569,430.41.	Extension and industrial service.	Construction.....	\$338,336.52			
		Special funds.....	124,600.42	Educational equipment and supplies.	\$172,218.11	
		Operating expenses.	687,144.73	Instruction.....	362,291.87	
				General operating expenses.....	152,634.75	9,998.05
\$449,348.70.		Construction and land.....	14,778.21			
		Special funds.....	140,341.71	Experimental work..	163,883.32	
		Operating expenses.	294,228.82	Extension work.....	130,345.50	
Per capita cost for 2,495 students, September-June, 1914-15. Operating expenses, exclusive of summer term, \$271.	Total.	Instruction.....	\$352,263.83	Per capita.	\$141.00	Enrollment:
		Educational equipment and supplies..	172,218.11			First semester..... 2,522
		General operating expenses.....	152,634.75			Second semester..... 2,467
						Total..... 4,989
						Average..... 2,495

## Summary Table of Expenditures, Iowa State Teachers College, 1913-14.

Educational.		Construction..... \$58,886.81		Educational equip- ment and supplies.		Instruction college \$122,049.64 year.	
Iowa State Teachers College. Total expenditures, 1913-14.	\$298,488.65	Special funds.....	1,649.33	Instruction.....	139,984.63	Instruction summer term.	17,934.99
		Operating ex- penses.	237,983.51	General operating expenses.	75,261.82		
	\$298,808.65						
Extension study center		\$320.00					



## Chapter III.

### DUPLICATION AND THE PRINCIPLE OF MAJOR LINES.

It has been stated that the commission, early in the course of its investigations, became convinced that, if it were to do justice to the problems presented to its consideration, it must take account of certain larger issues which have had a determining influence in shaping the development of educational administration in Iowa and which have in a great measure given rise to the questions on which the State board now seeks advice. The commission is persuaded that no permanent solution of the educational difficulties which the State has experienced can be hoped for until these issues have been resolutely faced and definitely settled on the basis of the highest good of the State and its coming generations of students, whatever the cost to personal or institutional ambitions. It confidently believes that a settlement on this basis is possible and that the necessary procedure is plain. It is far more important that such a settlement should be brought about than that the State should save a few thousands of dollars through economies in institutional management. Without recapitulating the history of State higher education in Iowa, the commission proposes in the present chapter to discuss the existing status of the three State higher educational institutions, especially as regards the fundamental question of duplication, and to point out a remedy which it conceives to be valid for the incoherency in the relationships between them.

The primary difficulty, so far as the three higher institutions are concerned, lies in the lack of clear definitions of scope, particularly as between two of them. In the beginning of State plans of education a State university was projected as the crown and completion of the system. At that time the differentiation of education into great spheres or divisions of subject matter was not foreseen in any of the States, and it was natural and perhaps inevitable that inharmony should arise with the founding of other institutions to care for the constantly enlarging demands. While theoretically and historically a State university may represent the culmination of the State system, practically the fields of all State institutions are determined by the successive acts of the legislatures.

There is marked tendency in all States to bring about a parity between the institutions of higher education, expressed in like or equivalent entrance requirements, in comparable educational standards and in equality of standing on the part of the staffs. In some States the effort in higher education is concentrated in one institution, known as the State university, in which all subjects are at once on a parity. In those cases in which the effort is distributed in

separate institutions the different subjects may, nevertheless, be on a parity, and the institutions may be conceived as one university separated into its parts, or the different parts may be recognized in fact, if not in name, as separate universities, each covering the field assigned to it. To one part in the State organism of higher education may be assigned all the liberal arts, the so-called learned professions and their adjuncts; to another may be assigned the applied sciences, mechanic arts and engineering, agriculture; to another the training of teachers. It remains for the State to define the fields of each in consonance, so far as necessary, with Federal statutes, and no one of the parts or institutions may assume the entire field to itself. This much must be granted before there can be a real harmony in any State.

Nor can the intention in the different parts or institutions be longer held to give one part superior standing or merit or to separate it into an educational class by itself. Education in terms of the applied subjects is as truly education as that in terms of other subjects, no less and no more if the teachers are as well trained, the institutions as well equipped, and the work as well done. The distinction in educational results between these complementary lines of effort is now happily vanished. Accepting this parity places a State in readiness for a harmonious development of its institutions.

The particular factor that has introduced the inharmony into many of the States is the rise of the land-grant college. In about half the States this institution is a part of the State university. In these cases the difficulties are now reduced to a minimum, while in some States they have been practically eliminated. In the States in which the land-grant college is separate the conflicts and duplications are naturally most marked. At one time it was thought to be the wisest policy to separate the institutions, because their fields of work were supposed to be incompatible, but at present, when all institutions of higher education are so rapidly expanding, there is widespread feeling that the land-grant college is best united with the university or incorporated into it. When a harmonious State procedure has been devised, however, there may still be certain very marked advantages in the separation. At all events, it is the responsibility of the State in such cases to make a coherent plan and to prevent conflict. This is now the major problem in educational administration in the United States, but it ought not to be difficult of solution if the adherents of the different institutions once accept the principles just stated. The conflicts between the different kinds of institutions result in large part from an attitude of mind.

Mere duplication of courses of study may not be any more disadvantageous or more to be deplored between two institutions than between the parts of one institution which is the size of the two. As

will be pointed out presently, the cost to the people may not be increased. Two or more State institutions of the same grade, but with different fields, may, indeed, produce a most wholesome stimulation, if they do not inharmoniously overlap, giving to the State a spirited and progressive development, preventing ingrowing, and separating its student body into groups small enough for the best educational results. The different faculties, working under separate administrations and developing in somewhat unlike directions, may add very much to the achievement of the State.

In dealing with the problems of duplication as manifested in the practice of the Iowa State institutions the commission has been guided by what may be described as the principle of "major and service lines" of work. In accordance with this principle, which is implicit in the considerations adduced above, each State institution should have assigned to it certain major fields which it may be expected to develop to their fullest extent. Agriculture at the State college of agriculture and mechanic arts is such a major line. Latin, German, French, history, political science, psychology at the Iowa State University are such major lines. Service lines are such subordinate subjects as are essential to the proper cultivation of a major line. The amount required is generally not very large. English is such a service line for engineering and agriculture at the State college. Institutions may well overlap as regards the relation of their service lines to one another and more particularly as regards the relation of their major to their service lines. English is a major line at the State university, a service line at the State college. But there should be no material overlapping of major lines.

In many parts of the educational field such a division affords a rational and practicable principle of administration. Between the State university and the State college this division would at present reserve as major lines to the institution at Ames agriculture, veterinary medicine, home economics, and certain departments of engineering to be later determined. It would make all other subjects at Ames service subjects, in no case to be developed beyond the point at which the needs of the major subjects are supplied. In the actual working of this principle it would result that a moderate amount of elementary collegiate work might be given at the State college in the languages and humanities and certain of the sciences, but that they would presumably never go beyond these rudimentary stages. At the State university agriculture and certain fields of engineering, if cultivated at all, would in the same way have a place only as service subjects contributory to the major lines allotted to the institution.

Certain subjects do not fall readily into line on such a principle of division. Chemistry, for example, has an obvious place at the State

university and also at the State college. Even aside from "chemical engineering" as such, chemistry is involved in many engineering processes and problems to a degree absolutely demanding its presence at the State college and making it practically difficult to determine to what extent it is merely a service subject and to what a major line. This embarrassment regarding chemistry is even greater when certain agricultural problems and the work of the experiment stations are taken into account.<sup>1</sup> Physics, zoology, bacteriology, and botany also present similar perplexities.

It seems to the commission that the detailed adjustments of these cases of overlapping, once the main principle has been accepted, are all obviously capable of amicable settlement by means of a conference consisting of some convenient number of representatives of the faculties of the institutions affected (perhaps five from each), elected by the faculties, and sitting with a committee of members of the State board of education. Such a conference might meet at stated periods, perhaps annually, to consider and adjust any difficulties that may arise from time to time. Meantime the principle of the major and the service lines will automatically settle the status of by far the larger number of subjects and forthwith determine whether in a particular institution they shall be developed beyond their elementary stages.

It may be properly remarked at this point that the oft-raised objection to the alleged exorbitant cost of duplication when the same subject is taught at two State institutions is largely specious. It costs no more to teach two sections of English at Ames and two at Iowa City than it does to teach four sections at Iowa City, assuming that the instructors are paid at the same rate in both places and that the size of the classes is kept constant at the point of maximum instructional efficiency. The overhead charge may be somewhat larger when the work is done at two places, but this is not necessarily the case. In any event the main objection to duplication of work in State institutions like those of Iowa is not expense, but the stimulation of unwholesome competition with all its evil consequences.<sup>2</sup>

Once this principle of major and service lines is adopted, the whole situation clears up not only as regards intramural work, but also as regards extension work. An institution would be permitted to do extension work only in a major line. This itself would avoid the duplication and overlapping now threatened, and if the safeguard elsewhere recommended (see p. 77) of an annual conference of the

<sup>1</sup> For a further discussion of chemistry, see p. 69.

<sup>2</sup> The relations of the State teachers college to the State university and to the State college have elicited much less public comment than the relations of the latter two institutions to one another, in spite of the fact that at present the liberal arts work at Cedar Falls and at Iowa City squarely and unequivocally overlaps.



extension officials of the several institutions is provided, there need never arise any serious problem of maladjustment.

The commission is of the opinion that in a Commonwealth with the geographical, economic, and social characteristics of Iowa there might well be justification for several State institutions of collegiate grade in different parts of the State; that so far as concerns strictly collegiate work, there is no very grave objection to be urged against the present practice of offering such work in three different places, although the justification would be greater if the three were in more widely separated localities, and, as indicated elsewhere (see p. 54) the wisdom of continuing the final two years of work at the State teachers college is questioned. But the commission is unable to see that there can in the last analysis be any justification for sweeping duplication in the range of advanced and professional work. It would certainly strike every unbiased observer as absurd to urge that there should be two medical schools conducted by the State at different points. It would seem equally absurd to conduct two law schools. Neither the size of the State nor the educational needs of that portion of the country in which the State of Iowa is located can possibly be held to justify such duplication. Abundant expert opinion upon this matter is available in the actions of the controlling authorities in charge of medical and legal education in this country. Considered strictly on its merits, there seems to be no more *prima facie* justification for two engineering schools. Indeed there are certain branches of engineering work which ought not to be undertaken at all in Iowa. Marine engineering, for example, surely has no place in an inland agricultural community. The theory that a State is under obligation to give instruction in every field of learning is regarded as fallacious, and each new undertaking of an educational kind ought to be subjected to the critical scrutiny of disinterested experts.

The commission is of the opinion that the continuance of the two schools of engineering as at present organized is uneconomical and indefensible, especially in so far as it concerns the development of upper-class and graduate work. At least three methods of readjustment are possible. (1) The horizontal, by which one school would become a strictly graduate institution and the other school an undergraduate institution. This would accord well with the mature judgment of a large section of the engineering profession that a bachelor's degree or two or three years of the work in liberal arts and science leading to such a degree, is the best possible foundation for the technical training of an engineer. In the judgment of the commission, this method is not at present applicable to the Iowa situation. Unless the principle were applied drastically, so as to require

a bachelor's degree for entrance to the more advanced of the schools, the difficulties of the present academic situation would not be materially lessened, and the possible overlapping in the field of extension work would require altogether separate consideration and treatment.

(2) The union of the two schools in one place under highly expert direction. The commission is unanimously convinced that this is the method by which engineering work under State support in Iowa could best be maintained and developed. No other method will so certainly insure the permanent elimination of the causes of friction, irritation, unwholesome competition, and wasteful duplication of high-class men and equipment for advanced work. It is scarcely conceivable that the State, if it did not now have two schools of engineering, would consider the establishment of more than one. The commission is not unmindful of the weight of arguments which may be adduced in support of the unification of this work at the State university, where it would enjoy the stimulation of other high-grade professional schools, where it would have a strong backing in the pure sciences and helpful contact with the liberal arts, and where it could be maintained on a high level, free from the tug of artisanship. On the other hand, the commission does not forget the fact that the land-grant colleges are quite as much bound by their essential character to develop mechanic arts (usually interpreted as synonymous with engineering) on an equal footing with agriculture. In view of this necessity for the joint development of agriculture and engineering, the commission believes that such union of schools, if it could be accomplished, should be made at the Iowa State College.

(3) If this second method is adjudged impracticable of application, considering the present condition of institutional and popular sentiment in Iowa, the commission recommends that a definite vertical (or topical) division of engineering should be carefully worked out by the board of education in conference with a small group of expert engineers, wholly unconnected with either institution, each of whom should be a member of one or another of the four American societies of civil, electrical, mechanical, and mining engineering. All four societies should be represented. When once this division has been determined, it should be rigidly enforced by all the educational authorities concerned. Perhaps this could be accomplished under a single dean of engineering for the two institutions, supplemented by unremitting detailed examination on the part of the board of announcements of engineering curricula and courses. In such a division it appears likely that the work in municipal and sanitary engineering, hydraulic engineering, and perhaps structural engineering, should be conducted at the State university, and that the work in highway, transportation, electrical, and mechanical engi-

neering should be developed at the State college. The necessity for work in mining, ceramic, or chemical engineering, and the location of this work, are matters for future consideration, in view of recommendations made elsewhere in this report and the possible future report of such a commission of impartial engineering experts as is suggested and urged.

Whether the work in domestic science can be regarded as up to the present time sufficiently differentiated on professional lines to warrant recognition as presenting a problem similar to that of medicine, law, and engineering may perhaps be questioned. Certainly the work as at present conducted relates itself as a service subject to a much wider range of nonprofessional interests and is as yet in too formative and unstable a condition to justify dogmatic assertion. The commission discusses this subject at length, however, and makes certain recommendations in Chapter VIII.

The position of music may serve to raise a similar question. Its development as a major line should unquestionably occur at the State university. It may well remain as a service line at the other State institutions.

With regard to the proposed discontinuance (beyond the second year of the professional work) of the work in liberal arts at teachers college, Cedar Falls, the commission is disposed to urge the wisdom of this on several grounds. In the first place, it seems reasonably clear that the institutions at Ames and Iowa City are at present abundantly able to care for all students who may be expected to seek the bachelor's degree in a State institution in Iowa. If the State wishes a third institution of a collegiate grade, it ought to be in the southern or western part of the State. Moreover, as has been clearly shown in another section of this report (Chap. I), the private institutions in the State are able to care for a very large proportion of the students who wish this degree, and between them and the other two State institutions all such students can be readily cared for. In the second place, the commission feels certain that at present, at least, the atmosphere of the institution is not unequivocally collegiate, and that students who now receive training there for the bachelor's degree are likely to miss certain valuable elements in such training. This opinion is based partly on the impression which one who has visited many institutions easily gets from even a brief contact with the situation, partly on consideration of the methods of class instruction, which are on the whole dominantly those of the high-school and junior-college type, and partly on the fact that the presence of a very large group of subcollegiate students inevitably affects the general intellectual maturity and academic tone of the work. In the third place, the amount of work now offered as of third and fourth year college grade is relatively small and may be regarded as only barely

sufficient to round out a senior-college curriculum. A comparison of the program of courses at the State teachers college with that at the State university or at the State college of agriculture and mechanic arts will confirm this statement. To be sure, a comparison of some of the weaker sectarian colleges would not be unfavorable to the teachers college, but this is a comparison which a State institution would hardly wish to employ.

Under these circumstances the commission feels that the expenditure of money and energy represented in keeping up the last two years of collegiate work at Cedar Falls is probably not to be justified on its merits. The commission would not be understood in this opinion as intending to depreciate in any way the seriousness of the work offered, nor the devotion and earnestness of the staff of instruction. The professional work done here is creditable to the State and to the authorities of the school, but a division of energy such as is suggested would in the long run contribute to the efficiency of the State institutions as a whole. Such a program, if carried out, would not in our minds imply the reduction of the budget of this institution. Quite the contrary. It would mean concentrating all resources on the earlier portions of its work, where at present its greatest obligation is found, and where there are certainly at present massed the great majority of its students, as Tables 4 and 5 on page 56 will indicate.

More particularly the commission would call attention to the desirability of greatly enlarging the facilities for practice teaching at teachers college. The present practice school in immediate connection with the institution is already overtaxed, and the commission finds it difficult to believe that the facilities offered in the town of Cedar Falls are at present wholly adequate. The commission is quite clear that the general attendance at Cedar Falls ought not to be permitted to expand until thoroughly satisfactory provision is made for practice teaching.

If the board and the people of the State are disposed, on further consideration of the question, to agree with the commission that the appropriate function of the State teachers college is the preparation of teachers for rural and graded schools, and not the preparation of high-school teachers, or the granting of the bachelor's degree for courses in liberal arts, the commission is strongly of the opinion that the future development of the institution on somewhat different lines is desirable. It recommends, therefore, that the courses for elementary teachers, both rural and urban, be made three years in length, substantially one-third of the time to be devoted to professional subjects, and the rest to work dealing with the subject matter of instruction. Entrance to those courses should, as soon as possible, be based squarely on high-school graduation. Such courses should

not, in the judgment of the commission, lead to degrees. It is persuaded that the improvement in the equipment of elementary, especially rural teachers, which this recommendation contemplates, would not only contribute vitally to the welfare of the State, but would place the State teachers college in a unique position of leadership among teacher-training institutions in the United States.

If the board does not see fit to adopt these suggestions, however, and if the plans at present in operation be continued, then the commission would advise that the last two years of the work be very greatly strengthened to bring it more nearly into line with the curricula of first-class institutions conferring the bachelor's degree.

TABLE 4.—Attendance at Iowa State Teachers College, Cedar Falls.

Courses.	1912-13	1913-14	1914-15	Total.
College courses <sup>1</sup> .....	649	420	560	1,629
Diploma courses.....	503	831	843	2,177
Subcollegiate.....	826	830	865	2,511
Unclassified and music.....	714	907	1,234	2,855
Total.....	2,692	2,978	3,502	9,172
Total diploma, subcollegiate, unclassified, and music students.....	2,043	2,558	2,942	7,543

<sup>1</sup> These figures include students entered as graduates as follows: 1912-13, 58; 1913-14, 45; 1914-15, 45. Juniors and seniors are listed in this group as follows: 1912-13, 170; 1913-14, 153; 1914-15, 193.

TABLE 5.—Statistics of Iowa State Teachers College for five years, 1907-1912.

Total number of individual students enrolled during the five years, each student counted only once.....	8,398
Students were qualified and trained for the following:	
(1) County school teachers, reaching the standard of county teachers' certificates.....	3,261
(2) General elementary teachers, having first-grade county certificate scholarship on admission.....	1,328
(3) Special grade and department teachers of all kinds—primary, kindergarten, music, drawing, home economics, etc.....	2,515
(4) Special music teachers.....	138
(5) Unclassified as to kind of work preferred.....	156
(6) High-school teachers—	
(a) With standard of North Central Association four-year college course.....	285
(b) First-grade State certificate standard.....	300
(c) Second-grade State certificate standard.....	300
(d) Other special teachers, estimated.....	115
—	1,000
Total .....	8,398

Whether the suggestion made above be adopted or not, the commission is perfectly clear that there are to-day no agencies in Iowa adequate to furnish proper training to the number of teachers annually required in the schools of the State. This fact has evidently

been recognized in the legislation providing for the addition of a year of normal training in certain high schools. The commission is fully cognizant of this situation, and its suggestion regarding teachers college is therefore in no sense directed to any lessening of the resources of the State in this direction. There should be additional normal schools established, in parts of the State remote from Cedar Falls and probably preferably in the southwest and northwest divisions of the State. If such normal schools were brought into intimate contact with the normal training high schools, and with the movement for the development of junior colleges in connection with the strong high schools which has gained great headway in many parts of the country, these several institutions could be made to reenforce one another in a most helpful way. An appreciable amount of serious collegiate work could be offered as a basis for professional training in these junior colleges on high-school foundations; and the normal schools, if brought into administrative contact with them, could furnish not only a spirit of professional standards and a corresponding stimulation, but could also be used to develop practice teaching work in various portions of the State now wholly unprovided with such facilities. A similar relationship could be cultivated between the normal schools and the normal training high schools.

In this connection attention should be called to the possibility of adding a group of strong men to the faculty of the teachers college (and to other normal schools, if established), who might give one-half of their time to instruction and the other half to service as members of the staff of the State superintendent of public instruction, supervising the work of the normal training high schools. Such an arrangement would greatly enhance the solidity and efficiency of the normal training courses and would bring both the State superintendent's office and the normal schools into most helpful organic connection with these high schools. Any measure that will improve the supervision of the training of rural teachers and that will put at their disposal added opportunities for practice teaching ought to be energetically fostered.

The foregoing discussion and the recommendations of the commission in this and subsequent chapters are based on the assumption that all three institutions are to be continued without essential change of character. The acts of the legislature making appropriations for the continued expansion of the institutions, including the development of graduate work, have established a presumption in favor of this interpretation.

The commission desires to call attention to one other aspect of the situation, however, which ought not to be overlooked. The college of agriculture and mechanic arts was created in response to the

Morrill land-grant act of 1862. In return for certain subsidies granted by the Federal Government at that time and at later times the State assumed the obligation to carry on instruction in agriculture and mechanic arts. Earlier in this chapter the commission expressed a belief in the substantial educational equivalence of the work carried on by the two types of institutions, the land-grant college and the State university. If this parity exists in other States, it certainly exists in Iowa. The commission is also about to recommend that graduate instruction and research work of the most advanced university type be encouraged at the Iowa State College. Nevertheless, such development of advanced work should relate itself exclusively to the limits established by the professional aims peculiar to the institution. This question is discussed at greater length in Chapters IV and V.

In closing this portion of the report, the commission desires to reiterate its conviction of the importance of applying strictly the principle of division advocated above to the work of the three State institutions. The State is probably rich enough to allow all of its institutions to develop as rapidly as the demands of students for instruction will warrant without regard to possible duplication of offerings. Indeed, the drawback to this policy is not primarily a financial one. It is rather that such a course will inevitably perpetuate intolerable mutual jealousies and antagonisms, tending to defeat all unity in the program of State education.

The five chapters following deal in some detail with various phases of duplication.

#### SUMMARY OF RECOMMENDATIONS.

1. The adoption of the principle of "major and service lines of work" at the three State institutions.
2. The creation of a conference consisting of members of the faculties of the institutions and the State board of education to adjust questions of overlapping not automatically determined by the establishment of major lines for each institution.
3. The readjustment of the work in engineering at the State university and the State college, according to one of three methods:
  - (a) A horizontal division, assigning graduate work to one school and undergraduate work to the other.
  - (b) The union of the two schools at one place.
  - (c) A vertical division of work, assigning some branches of engineering to one institution and some to the other.
4. The discontinuance of the last two years in liberal arts at the Iowa State Teachers College, with suggestion of three-year non-degree courses for rural and grade teachers.
5. The enlargement of facilities for practice teaching at the State teachers college.

6. The establishment of additional normal schools.

7. The addition of men to the faculty of the State teachers college, to give half of their time to instruction and half as members of the staff of the State superintendent of public instruction and the supervision of work in the normal-training high schools.

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## Chapter IV.

### GRADUATE WORK.

Next to engineering the field of graduate work undoubtedly offers the greatest area for the development of unwarranted and expensive duplication. The State board's request that the commission investigate graduate work indicates that the board has appreciated the danger which lies in this direction. The subject has seemed to the commission second in importance to none of those upon which advice has been asked. An account of the actual present status of graduate work at each of the institutions is submitted herewith and the attempt is made to point out how the principles developed in the preceding chapter may be applied to the avoidance of serious duplication and the friction of competition.

Graduate work of a high character is, and ought to be, carried on with increasing efficiency at both the Iowa State University and the Iowa State College. At the Iowa State Teachers College, the degree of master of didactics is conferred for a professional course representing 45 term hours. This, however, does not constitute really a graduate school or college, but is work offered chiefly during the summer session for college graduates who wish to take up the study of professional subjects. It is more nearly an extended undergraduate course, with the requirement of a thesis, than organized graduate work based upon an undergraduate foundation.

#### STATE UNIVERSITY OF IOWA.

The graduate college of the State university grew out of a standing committee, first appointed in 1893, to define the terms for granting master's degrees. Work leading to the doctor's degree began in 1898, and the graduate college was formally instituted in 1900. Since that time it has made steady advance in organization and in standards. The commission commends cordially the general sincerity and progressiveness of the graduate work done at the State university, especially in certain thoroughly organized departments like education, philosophy and psychology, history, and political science.

The State university makes a distinction between the admission to the graduate college and admission to candidacy for a degree, and



endeavors to determine each case upon its own merits. This is in accordance with the common practice of graduate schools by which persons holding degrees from acceptable colleges are admitted probationally, and later, when they have demonstrated their capacity for work in the majors and minors selected, are admitted to candidacy for a particular degree. A student coming from a college about which there is question is tested by departments as to his major work only, but no test seems to be applied in regard to the general soundness of his training or the value of his minor work. The registration of students in graduate courses for the summer session appears to be handled more loosely than in the regular session, and the records of such students are in a less satisfactory condition. Neither in the regular session nor in the summer session does it seem to be necessary for a student registered in the graduate college to take any course designed for graduates only. A student who desires to enter the graduate college and take work only in a field for which he has had no preparation in his undergraduate work should be registered as an undergraduate, rather than a graduate, student until he is ready to carry advanced courses or courses for graduates only. The commission suggests the adoption of a rule by which no student may have graduate status unless a certain specified proportion of his registration is in courses for graduates only.<sup>1</sup>

A candidate for the master's degree is usually required in this graduate school, as in nearly all the strong graduate schools, to do work in residence during one collegiate year of approximately 36 weeks. The State University of Iowa, in common with some other institutions, accepts resident work in four summer sessions of 6 weeks each (24 weeks) as a minimum for satisfying this requirement, but students have usually been required to prepare theses outside of this residence period. This is in contrast with institutions like the University of Chicago, which makes precisely the same residence requirement of students working in the summer as of other students. The State University of Iowa has, however, worked out a plan for supplementing in some degree the work of the summer session through "projected registration," by which a student who has been in residence in graduate status at the university for at least one sum-

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<sup>1</sup> The State university has one almost unique group of graduate students, those who are candidates for the M. S. in medicine, who have been recommended by the faculty of the college of medicine upon the basis of an M. D. degree. This represents the extreme of tolerance, since the announced requirement for admission of students to candidacy for such a degree is a satisfactory high-school course, plus a four years' course in medicine. The latter may be taken in a medical school which does not require any college work for entrance. The university announces no list of approved medical colleges whose graduates may be thus received. The work for the degree appears to be done mainly in absentia by practicing physicians. Two or three persons per year for about 10 years have been granted this M. S. degree. The registration for this degree has fallen off, however, so that the dean of the graduate school reports only one student so registered in 1915-16.

mer session may do work in absentia according to a plan agreed upon with some authorized instructor. Credits earned through projected registration may equal those previously earned in the same subject in residence. In a bulletin, the university states "that projected registration does not operate to reduce the residence requirement for a master's degree [but] may, however, operate to reduce materially the time requirement for earning the doctorate." The department of education is the one chiefly concerned with projected registration, since many of its students in research find their problems outside the campus and in connection with their professional duties. Some 12 or 15 students are thus registered and working in cooperation with certain departments upon problems for which they will later receive credit. Projected registration might be called the temporary substitute for the fifth or sixth summer session of work as a part of the requirement for the master's degree.

Graduate work is offered under 25 departmental headings, including engineering, archæology and the history of art, home economics, histology and embryology, and five other departments in the college of medicine. The apportionment and scope of the graduate work in the university seems to be variously determined, by the graduate faculty (all full professors giving graduate work), by the graduate council of seven men (one elected by the graduate faculty for a seven years' term), or by the quality of leadership in particular departments. Individual instructors get their authority to give graduate courses from the departments. There is consequently a wide difference in the amount and spirit of graduate work in different departments. In one department, for instance, there are 16 persons, of whom only 1 is a full professor. It was stated to the commission that but one of these was distinguished for the published results of his research, though several others are directing thesis work or engaged in "creative work" or in various kinds of learned activity, which are regarded as on the same basis as research.

It is clear to the commission that the university can not do equally strong work in all the departments announcing graduate courses, even if an equal number of graduate students should appear for each department. Like every other university which does graduate work, it must choose which departments shall be encouraged to undertake work of an advanced sort, leading, for example, to the doctor's degree. This determination should be made by a body competent to express the judgment of the institution as a whole, and the expression of this judgment should result in the formulation of a system or policy for the best utilization of such portions of the energy of the institution as may be devoted to graduate work. The commission did not get the impression that the State university was thus developing its graduate work. Too much appears to be left to

the will of the head of the particular department as to whether his department shall give courses, for example, which will lead to the doctor's degree. By vote of the graduate faculty, or, perhaps, better, of the university senate, a body which has no "board" on graduate work and which seems to fall short of realizing its possibilities, certain departments should be especially encouraged to develop the most advanced courses of instruction and research, by special care in selecting new men, by the encouraging of the promising research workers already on the staff, and by generous appropriations in the university budget. In this way the prestige of the university will be more enhanced than by trying to keep all departments on an even front. Fluctuations in the strength of departments are bound to occur with the coming and going of strong, productive men, but the accumulation of library and apparatus will fluctuate much less under the policy here suggested. By way of illustration, the university is peculiarly fitted to carry on the finest sort of graduate work in geology; it is already strong in physics, psychology, and education; it ought not to attempt, on the other hand, to build up courses in entomology, agronomy, or plant breeding.

#### IOWA STATE COLLEGE.

The graduate division of the Iowa State College should, in the judgment of the commission, develop naturally and properly out of certain sections of the undergraduate work. It should follow those major lines of work for which the institution is constituted. Its graduate work, therefore, should be supplementary to that of the State university, and coordinate with it, but without any such overlapping as is permissible and perhaps desirable in the first two years of undergraduate curricula in certain courses. Wherever this institution or the State university diverges from this principle, it should be brought back by the board or by some other correlating agency.

The graduate division of the State college, which was established in 1913, offers major and minor work for the master's degree in 18 subjects, "with special application to the industries." Aside from those subjects which are unquestionably related to the major lines of agriculture, engineering, etc., there are included in this group, mathematics, economics, geology, chemistry, and zoology. The subjects or departments in which the degree of doctor of philosophy may be taken are decided upon by the faculty of the graduate division, subject to the final determination of the matter by the board of education. At present they are the following: Agronomy, animal husbandry, bacteriology, botany, chemistry, dairying, geology, horticulture, and zoology.

The conditions upon which professional degrees in engineering are granted are: (1) Graduation from a four years' curriculum in engineering, one year of residence study, and one year of professional experience, and the preparation of a satisfactory thesis; (2) graduation from a regular four years' curriculum in engineering, five years of professional experience, and the preparation of a satisfactory thesis; (3) graduation from a regular five years' curriculum in engineering, one year of professional experience, and the preparation of a satisfactory thesis. The degree of master of agriculture requires graduation from a four years' curriculum, five years of experience in practical or professional agriculture, and the presentation of a thesis. The combination degree in agriculture and engineering is granted by the cooperation of the two divisions.

Admission to the graduate division, of which the president is the acting dean, presupposes graduation from a college or university of approved standing. In addition, evidence of the necessary prerequisite training for the course to be pursued is required, since it is quite possible that a graduate from a narrow arts curriculum would find himself wholly unprepared to undertake graduate work in a subject like crop production, in which the college offers work leading to the degree of doctor of philosophy. For the master's degree, one year of work in residence and the completion of 30 hours are ordinarily required. Of the 30 hours, 20 must be, and all of the 30 may be, in the major subject. The catalogue states that major work will ordinarily be restricted to graduate subjects. Under certain restrictions, one-half of the work required for the master's degree may be done in absentia. In these cases, the residence work may be accomplished by three summer sessions of six weeks each. The requirements for the degree of doctor of philosophy follow the usual announcements in such matters, except that of the three years of graduate work required only one appears to be necessarily a year of residence work, and that at the State college.

An examination of the records of graduate students admitted during 1914-15 indicates an unusually generous judgment of the sufficiency of the curricula of several institutions from which students have come, as a basis upon which to build graduate work. It is evident to anyone who knows much about these institutions that their curricula can not be the equivalent of those of the Iowa State College or of "other colleges and universities of approved standing." In other words, it is educationally impossible to combine in the same graduate courses, without sacrifice of standards, students who have had seven or eight years of work above the eighth grade and students who have had six years of work above the eighth grade. The larger number of students registered in the graduate division hold degrees from Iowa State College or from other institutions of unquestioned

rank, like the State University of Iowa, the University of Nebraska, Grinnell College, or the Ohio State University. Mixed in with these are a considerable number of students from institutions which have hitherto required for admission only one or two years of high-school work, perhaps 10 units. Seven students from Oklahoma Agricultural and Mechanical College appear in the enrollment, two from Kansas State College, two from Clemson College (the South Carolina Agricultural and Mechanical College), three from Oregon Agricultural College, and one from Mississippi College of Agriculture and Mechanic Arts. Some of these students came directly to Ames after their graduation.

The largest number of graduate students in any one department is in agronomy. In 1914-15 there were in residence 10 students; 1 each in soil fertility, soil physics, and farm management; 3 in soil bacteriology; and 4 in crop production. In 1915-16 there were 9 students; 1 in soil fertility, and 4 each in soil bacteriology and crop production. The men for 1915-16 were selected from some 35 or 40 applicants. Among those selected were graduates of Texas Agricultural and Mechanical College, Oklahoma Agricultural and Mechanical College (a bachelor of science, 1915), and Clemson College.

The commission is of the opinion that much greater care should be exercised by the graduate division of the State college in admitting students from institutions whose work is not based squarely on the requirement of a standard high-school course, representing at least 14 units. In justice to the Iowa State College it should be said that it is not alone in this practice of objectionably lax admission to its graduate school of students coming from agricultural and mechanical colleges which have not yet seen their way clear to the enforcement of standard entrance requirements. The continuance of this practice is bound to reflect upon the standards of Iowa State College, in that students who transfer from its graduate division to other graduate schools, like Chicago or Cornell, will be very likely to be discounted in their credits earned at Ames.

Certain of these institutions have, to be sure, recently raised their entrance requirements. Students graduating before 1914, however, entered before these improvements in standards.

The commission recognizes the difficulty which now exists and which is bound to continue in defining the scope and upreach of the graduate work which should be carried on by the State university and the State college. As a means of making the adjustments that will be necessary as long as the departments in these institutions are directed by strong, vigorous, resourceful, ambitious, scholarly men, the commission recommends the creation by the board of education of a standing committee on graduate work to be composed of two of its own members and three members each from institutions

giving graduate work, the latter to be elected for a term of years by the graduate faculty in every case. It is further recommended that this committee be granted power to review the present offerings of graduate courses, to make such definitions and adjustments between institutions as may be required in order to secure conformity to the principle of major lines enunciated elsewhere, and that no institution under the authority of the board shall inaugurate any new lines or announce any new courses without the approval of this committee in advance. Through such a committee the graduate work of the various institutions will be subjected to at least an annual review and discussion not by an outside body but by men who are actively engaged in building up graduate and research work in the State institutions. It is conceivable, for example, that such a committee would decide that graduate work and research in such subjects as history, modern languages, political science, psychology, mathematics, and education ought to be developed only at the State university; that such subjects as agronomy, animal husbandry, horticulture, and entomology should be developed only at the State college; and that certain specified branches of such subjects as chemistry, botany, zoology, and bacteriology may be properly developed in one location or the other, but without duplication.

In making this recommendation, the commission would make it perfectly clear that the purpose is to promote, rather than limit, the development of graduate and research work, which shall be fostered by the combined wisdom of the great institutions of the State and backed by the resources of a rich Commonwealth.

#### SUMMARY OF RECOMMENDATIONS.

1. The encouragement of the development of graduate work at the Iowa State University and the Iowa State College of Agriculture and Mechanic Arts along the major lines of the institutions.
2. The adoption of a rule by the university according graduate status to none but students having a definite proportion of their registration in courses for graduates only.
3. The determination by the university senate, or some other representative body, of the departments to be encouraged to develop graduate courses.
4. The exercise of greater care by the graduate division of the State college in admitting students from other institutions to graduate standing.<sup>1</sup>
5. The creation of a standing committee on graduate work, to consist of two members of the State board of education and three members each from the institutions giving graduate work, the latter to be elected for a term of years by the graduate faculties.

<sup>1</sup> An announcement now coming out provides for exclusion of graduates of low-grade schools.

## Chapter V.

### LIBERAL ARTS WORK IN THE IOWA STATE COLLEGE.

The commission has been asked by the State board of education to investigate the following question: "Does the liberal arts work offered at the Iowa State College of Agriculture and Mechanic Arts come within the proper scope of that institution when considered in connection with the other educational institutions of the State?" In the judgment of the commission, the issues raised by this question, as by the question relating to graduate work, are vital. They lie at the very root of the State's higher educational problem. Special attention has, therefore, been given to the subject, and a detailed discussion of principles and practices is presented in this chapter and in the appendix.

The necessity of introducing some courses in liberal arts and science subjects into the curricula leading to the various degrees at the Iowa State College will not be disputed. While the work prescribed for degrees in agriculture, engineering, home economics, veterinary medicine, etc., is more or less technical in all the State universities or land-grant colleges, such work is nevertheless undergraduate, and, with the possible exception of veterinary medicine, not professional in its nature. It is now upon a scientific collegiate basis, rather than upon a mechanic arts or purely vocational basis. The first two years of the undergraduate curricula in agriculture and engineering in nearly all of the strong universities of the United States and in specialized institutions like the New York College of Agriculture in Cornell University and the Massachusetts Institute of Technology are largely made up of work in the fundamental mathematical and scientific subjects, such as botany, chemistry, mathematics, and zoology, in combination with varying amounts of English composition and literature, history, modern languages, economics, political science, and sociology. It happens not infrequently also that general or survey courses in the latter group of subjects are put into the last two years of the undergraduate course. It is of the greatest importance in this connection to keep clearly in mind the distinction, which is elaborated elsewhere in this report, between the major lines of work in an institution like the Iowa State College, and the group of liberal arts and science subjects here under discussion. The latter are and ought to be auxiliary or service subjects, which serve either as the foundation or as buttresses for the main structure.

The principle on which liberalizing subjects, whether humanistic or scientific, should be included in the schedule of work of an institution organized by the State for the express purpose of developing

curricula in agriculture, engineering, etc., may be stated thus: Only such liberalizing subjects should be incorporated in the offerings of the institution, and only in such amounts, as will wisely reenforce the technical or semitechnical specialized curricula for whose development the institution was constituted. In all institutions like the Iowa State College attempts to develop courses in these subjects for themselves are certain to be made. Strong teachers will naturally urge elaboration of the subjects in which they are interested, sometimes in disregard of the purposes of the institution as a whole. Courses may even be offered as a means of holding students already registered who have changed their professional or academic intentions. If there be such students in the institution, they should, of course, be directed to seek instruction in other institutions emphasizing other curricula.

It is the commission's opinion that all these attempts should be checked by the governing board, even though the plea be made that the cost of such tentative development is small, or that the number of students is not large, or that a *local* demand is to be met. To take specific examples, the development of extended courses in psychology, in the history and theory of education, in political science, or in advanced mathematics, in the Iowa State College should be authorized by the board only upon proof that such courses are indispensable for the purpose of supporting regular work in the major lines already mentioned. The problem of the relation between undergraduate work and graduate work in the different departments in the Iowa State College is more fully discussed in another place. If the principle of the establishment of major lines of work, forming the main structure in the curricula of the State institutions, be accepted, another principle will be at once clearly defined. All departments of an institution must be treated alike in the matter of thoroughly adequate provisions of men and apparatus with which to do the work required by the purposes of the college. All departments need not be treated alike, however, in facilities for expansion and outreach into graduate courses and research. A service department is a service department and not a major department, and it must so remain, if waste and unwarrantable duplication of effort and expenditure are to be avoided.<sup>1</sup>

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<sup>1</sup> Certain departments, like chemistry and botany, by their intimate and organic relation with the research work of experiment stations, will need to develop specialized forms of work in the direction of major lines; for example, soil chemistry, organic chemistry, plant pathology, and dairy bacteriology. But in all such cases a clear differentiation of departmental functions should be enforced, for the State does not need two groups of research men and two research laboratories for plant pathology or dairy bacteriology. It is even conceivable that a strong man in one of the other State institutions might develop his talents along one of these lines to a point which would make it desirable to transfer him to the State college staff instead of continuing his work on the old location.



Courses in practically all of the subjects referred to above are taught in the Iowa State College and embodied in widely varying proportions in the curricula leading to different degrees. Some of them, for example, English and mathematics, are required of nearly all students in agriculture, engineering, and home economics. The commission finds no evidence that the number of instructors in these fundamental subjects, as taught in the first and second years, is too large or that the services of these instructors are uneconomically utilized. Furthermore, the number of semester hours required in these subjects in the curriculum of the first two years does not appear excessive or ill balanced. Work in English composition, elementary mathematics, and like subjects for students of the first and second years, if the number of students in each place exceeds 200, is probably carried on just as economically and just as effectively in two or three places as in one. Two hundred students will keep fully occupied two instructors in first-year mathematics, two in chemistry, and two in rhetoric; similarly, laboratory space for 600 first-year students in chemistry and zoology would not be greatly economized if work were to be done in one place, as contrasted with a more or less equal distribution of it in three places. In other words, the commission finds no evidence of unnecessary or wasteful duplication of work of the first and second years in the three State-supported institutions in Iowa. Each has its corps of instructors for these years fully occupied, and pressure upon its space for the work of these two years is not below normal.

Substantially the same thing is true of the essential service courses in the third and fourth years in the curricula in agriculture and home economics in the State college. The prescribed courses in such curricula, in mathematics, physics, chemistry, botany, zoology, English, economics, education, and psychology is warranted by the normal needs of these groups of students. In order to meet the requirements of the State law in regard to the certification of teachers, students who wish to be prepared upon graduation to teach agriculture, home economics, and manual training must have had instruction in certain prescribed subjects. The obligation to give this instruction can scarcely be called optional for the institution unless some device is worked out by which a student may obtain these courses elsewhere through an organized plan of inter-institutional movement of students. Such plans are not yet common in America.

In the more advanced and specialized courses the commission finds considerable duplication of courses offered elsewhere. Much of this seems unwise and unwarranted when judged by the principle announced by the college as covering its service departments of instruction. The commission finds an illustration of this tendency in the

department of chemistry. The college must maintain its undergraduate work in chemistry upon a high level; it must provide every necessary facility for the chemical side of the work of the agricultural and engineering experiment stations. Undoubtedly it must also develop certain lines of graduate work in chemistry connected with the agricultural experiment station, which has a special obligation to the Federal Government and the engineering experiment station. It does not follow, however, that the college would be warranted in attempting to establish a great school of chemical instruction and research, covering every phase of the vast and varied subject. If the State is to support several departments in different institutions, it may well insist upon strictly defined specialized lines for each institution. Unquestionably the State college must undertake a great development of chemical research as related to agriculture, but the preparation of men to be research workers in numerous other branches of chemistry is not necessarily an obligation laid upon the State or upon this particular college.<sup>1</sup>

The commission recommends a thorough-going revision of the announcements of this department and the elimination of all courses that are not strictly in conformity with the principle of the development of major lines, and do not directly reenforce the work of the experiment stations. An advisory committee of members of the American Chemical Society, who have no relation whatever to the State college and State university, could undoubtedly assist the board very materially in determining the lines of advanced work in chemistry which each institution should cultivate.

The charge has frequently been made and widely believed that the Iowa State College has endeavored to build up a curriculum in liberal arts and sciences leading to a nontechnical degree either in general science or in arts. The present president of the college and others in responsible positions disclaim in most explicit terms any attempt to build up such a curriculum. They insist that only such liberal arts subjects and only so much of such subjects will be taught by the institution as will be needed for a properly balanced and enriched curriculum in agriculture, engineering, home economics, and veterinary science. While the commission accepts this statement as an accurate description of the present intention, there is some evidence that an attempt was made at an earlier period in the history of this college to formulate a curriculum which might have been described not inaccurately as a curriculum of liberal arts and sciences, even though it was not intended to have it lead to the degree of bachelor of arts. The commission found some conflict of testimony as to the

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<sup>1</sup> For a comparison between the offerings in chemistry by the Iowa State College and by other institutions, see Appendix, p. 141.

definiteness and vigor of this attempt. Possibly part of the difference of opinion rose from the difference of concept as to what was meant by a general or a liberal arts course. Since both the humanities and the sciences are now accepted as proper liberalizing disciplines, the commission does not distinguish between a curriculum in which a student may major in geology or mathematics and receive a degree of bachelor of science in general science, and a curriculum in which a student may major in philosophy or economics. Courses offered in several departments in the general catalog for 1915-16 indicate a past or present ambition to expand certain subjects beyond the needs of the curricula in which they constitute a subsidiary element.

It is necessary, therefore, to examine the contention that all the work in liberal arts and pure science now offered is primarily subordinated to the interests of students taking one of the curricula leading to degrees in agriculture, engineering, home economics, etc. In place of the "colleges" commonly found in the larger universities, this institution has a grouping of departments designated as "divisions," for example, the division of engineering, the division of agriculture. It is evident that the division of industrial science is constituted in a different manner from the other divisions, and that the procedure of a student in this division, if not his original intention, is likely to differ quite markedly from the procedure of a student who enters upon the curricula in agriculture or engineering. The catalog for 1915-16, page 232, states:

The courses in industrial science are not "liberal arts courses." They are courses intended to fit the student for certain specialized fields of professional activity \* \* \*. An opportunity is offered for the election of an amount of general work approximately equal to that allowed or required in other technical courses of the institution \* \* \*. Neither are those courses to be regarded as *general science* courses, for as soon as the scientific and linguistic foundation of the freshman and a part of the sophomore year has been secured, the student is required to specialize in some science and to relate it definitely to its industrial and professional phases.

The division of industrial science includes the departments of—

Bacteriology and hygiene.  
Botany.  
Chemistry.  
Economics.  
English.  
History and psychology.  
Library.

Mathematics.  
Military science and tactics.  
Modern languages.  
Music.  
Physical training.  
Public speaking.  
Zoology.

Logically geology and physics should be here, but they are, as it happens, departments in other divisions.

In the division of industrial science there are four curricula leading to the degree of bachelor of science with major work in one of the following departments:

Bacteriology and hygiene.

Botany.

Chemistry.

Economics.

Entomology.

Geology.

Mathematics.

Physics.

Veterinary anatomy.

Veterinary pathology.

Veterinary physiology.

Zoology.

Special groups in this department are:

Applied botany.

Applied chemistry.

Applied entomology.

Applied geology.

Joint or five-year curricula are offered in chemical engineering, agricultural engineering, and home economics. A six-year combined curriculum with veterinary medicine is also provided.

The curriculum of the freshman year in industrial science "leading to the degree of bachelor of science (in some major science)" has no industrial subject whatever in its total of 34 or 37 hours, unless 2 hours of the industrial history of the United States or of the economic history of American agriculture be so characterized. In this respect the curriculum does not greatly differ from the curriculum in agriculture. In the sophomore year, 16 hours of "science electives" and 12 hours of free electives are included in the total of 36 hours. The only industrial subjects that appear here in the science electives are veterinary anatomy, veterinary pathology, and veterinary physiology. The major for the junior and senior years requires that at least 20 hours out of a total of 64 shall be chosen from the major subjects enumerated above.

From these statements it appears that a student in getting his bachelor of science degree might reduce the elements which are really industrial to a very low minimum. If his major were in economics, mathematics, or geology, he would have 2 hours of industrial subjects in the freshman year, none in the sophomore year, and a maximum of 24 in his junior and senior years, with a possibility of materially reducing the 24 with the approval of the proper authorities. This is not far from the substance of a curriculum in liberal arts and sciences. The distinction between a major in geology and a major in history is not material, if the principle of prescribed courses along major technological lines, in accordance with the purpose of the college, is accepted. While the curriculum does not permit a major in such humanistic subjects as English, modern languages, and education, each of these subjects may have a considerable representation through the free electives.

It does not appear that many of the relatively small number of students taking the degree in industrial science have been allowed to abuse the opportunities which exist for making extreme schedules.

In the following paragraphs the offerings of three of the departments included in the division of industrial science are analyzed with a view to determining how far they have conformed in their development to the limitations laid upon them as service departments subordinate to the major technological lines of the college. An analysis of the offerings of four other departments in the same division is given in the appendix, page 140.

An analysis of the department of English and the department of literature, which appear to be really one department, shows that the principle of subordination of the work of these departments to the major purpose of the college is well followed out. The unexpectedly large number of courses in these departments is due to the splitting up of the elementary work into courses which, in the main, duplicate each other, having slightly varied credit values for different groups of students—for example, those in home economics or in agriculture. In English 15 courses are announced, of which 1 set of 2 courses, with 3 credit hours each, is designed for agricultural engineers; another for agricultural students; still another, with 2 hours' credit, for women. The total offerings, including these duplicates, are 36 semester hours, or, eliminating duplications, 22 semester hours.

In literature an elastic scheme of credit is elaborated. Literature 1, for example, may be taken for 1, 2, 3, or 4 hours' credit. The maximum obtainable in the general courses is 14 hours. An unusual group is described as "Literature as related to technical subjects and courses." One of these courses is "The scientific age in literature." Others are "Literature of farm and community life," "Reading for children at home and at school," and "The farm library." The total offerings in this group in the department of literature are 18 semester hours. No courses open to undergraduates and graduates, or to graduates only, are offered in these two departments.

The announcements in the department of economic science ("Applied economics and social science") indicate a disregard of the sentiment which has kept English and literature purely service departments. Six courses, totaling 16 semester hours, are for undergraduates. Twenty-four courses, totaling 17 semester hours, are for undergraduates and graduates, including two "seminar" courses ("current events," "reading economic magazines"), and one in research, involving public utilities, speculation, and "various other problems and phases of social and industrial life." One course in thesis and research work is for graduates only. The head of the department states that each course is given a distinctly agricultural or engineer-

ing bent and that it justifies itself as a semitechnical or industrial course, as distinguished from a liberal-arts course. It is the opinion of the commission, however, that so large a number of courses is unnecessary for the support of the allied interests, and that the wide differentiation indicated by the titles just quoted scarcely represents present institutional necessities. The commission would point out that the importance of a very thorough training in the principles of economics for an engineer who wishes to do research work in railroad rates, or in municipal or financial direction of public utilities, does not constitute an obligation on the part of this college to give such instruction, merely because it maintains a college of engineering and an engineering experiment station. A student wishing to make this combination of economics with engineering would do far better to go to an institution making a specialty of graduate work in economics. The State and the State college would be the gainer by such an arrangement, and would avoid the criticism which might be leveled at the present tendency to develop advanced and graduate courses in economics in this institution.

The courses in geology are designed—

to meet the requirements of students in civil engineering, students in the division of agriculture, students specializing in geology and botany, students in mining engineering, those who expect to become mining geologists and professional geologists, and students taking general courses.

Accordingly, a student's major may be in geology in the division of industrial science. In so doing he would take a maximum of 49 hours in geology, mineralogy, and physiography, without choosing any electives from these subjects, save as alternates for prescribed courses. This curriculum, with geology as major, whether designed for professional geologists or "students taking general courses," does not differ materially from that which could be taken in a standard college of liberal arts and sciences, perhaps leading to an A. B. degree. It could not justly be described as auxiliary to any technological or semiprofessional purpose in agriculture or engineering.

In the department of geology 28 courses are announced—4 for undergraduates, 18 for undergraduates and graduates, and 6 for graduates only. These represent a total of about 95 semester hours, covering work in geology, mineralogy, petrology, petrography, stratigraphy, cartography, physiography, and meteorology. The staff of instruction consists of one professor, who is also professor of engineering and vice dean of the division of engineering, and one assistant professor. Six graduate courses are announced by the professor, with no indication of alternation in the giving of the courses year by year. Special work in the thesis course, with five hours' credit, may be taken in such specialties as metamorphism and stratigraphic geology. Except for the courses that may be used for a major in

industrial science or in one of the "general courses," the amount of work called for in this department by students in agriculture and engineering, even including mining engineering, would not require more than one-half the present offerings.

The commission is clearly of the opinion that the work of this department, as announced in the catalogue for 1915-16, indicates the existence of a large duplication of the work done at the State university. Geology as a major subject in the curriculum in industrial science and in any other curriculum designed to train professional geologists should be eliminated from the State college. The State does not need two research or graduate departments of geology, for the number of graduate students is not likely, in the near future, to be very large. The State university is in direct contact with the office of the State geologist and the great collections belonging to that office. Because of the development already attained at the State university under these conditions, that institution is the logical and proper place for training all students who wish advanced work in geology. At the State university 19 courses, totaling 59 hours, are offered, besides 6 research courses, for which specific hours of credit are not announced. The department includes the same general scope of work as at the State college, and instruction is given by two professors, one instructor, and one assistant.

The State college must, of course, provide general courses in geology, meteorology, etc., in a service department conducted as such for students in agriculture and engineering, but the department of geology should be kept at that limit. If, as is quite possible, a student should now and then be developed who desires to make geology a profession, or who seeks to strengthen himself as a mining geologist, provision should be made for his transfer to the State university or to some other institution with a sufficient number of mining or geological students in its advanced or graduate courses to give a distinctly professional atmosphere and momentum, to create in him a real scientific or professional enthusiasm. In 1914-15 the registration in mining engineering in the State college was: Senior class, 3; junior class, 4; sophomore class, 0; freshman class, 3. A group so small, even if kept carefully segregated, would be practically lost in the body of engineering and agricultural students.

In order that the State college may avoid all further suspicion that it is endeavoring to build up a curriculum of liberal arts, the commission recommends that its officers take immediate steps (1) to confine the offerings of the departments included in the division of industrial science to such scope as is appropriate to purely service departments and (2) so to recast the requirements for the degree of bachelor of science in this division as to render it impossible for

any student to secure the degree without pursuing industrial or professional courses to an amount substantially equal to that required in other technical courses in the institution. These steps the commission thinks are necessary to make the work in this department coincide with the catalogue announcement quoted on page 70.

#### SUMMARY OF RECOMMENDATIONS.

1. The strict enforcement by the State board of education of the principle that departments of liberal arts and sciences at the Iowa State College of Agriculture and Mechanic Arts shall be simply service departments; especially the revision of the work offered in the departments of economic science, geology, physics, and mathematics to secure conformity to this principle.

2. The abandonment of courses in chemistry at the Iowa State College which neither contribute to the major lines of that institution nor reinforce the work of the experiment stations.

3. The revision of the requirements for the degree of bachelor of science in the division of industrial sciences to render it impossible to secure the degree except on completion of industrial and professional courses (in contradistinction to liberal arts courses) equal in amount to those required in technical curricula.

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### Chapter VI.

#### EXTENSION WORK.

The State board's memorandum, which in general has served as the commission's guide, says, under the caption "Extension Work":

Would it be feasible or wise to consolidate the extension work of the three institutions under one head which would represent the institutions collectively and correlate the work? \* \* \* More or less duplication is sure to result if this work is carried on independently. Your advice touching these points will be much appreciated.

The extension work of institutions of higher education is the taking of some part or parts of the institution to the people where they live. It is of two rather distinct kinds: (1) The giving of courses of instruction in the localities, representing similar courses at the institution itself; (2) instructing and aiding the people by means of many varieties of welfare work, rather than by recognized courses or sustained periods of instruction.

The former is the true university extension—the extending of the institution, by means of summarized and popularized courses of lectures and reading in the subjects that are regularly included in its curriculum. This formal type of enterprise at present occupies a very minor place in the extension field. An institution may now lend itself in many kinds of helpfulness and cooperate with any



number of agencies and organizations, to disseminate information, to aid a person in his occupation, to meet the problems of a community, to set new forces in operation, to organize the intelligence of a constituency. This latter type of extension work has come primarily out of the land-grant colleges on their agricultural side, being an expression of their desire to reach a manifest need and to make the widest application of public funds. It is the expression of a new or decidedly modern intention in education. It is now recognized as a form of national as well as institutional effort, in the Smith-Lever bill, which was signed by President Wilson May 8, 1914, and which provides Federal appropriations for extension work in cooperation with State appropriations. This kind of extension enterprise is now reacting strongly on the older kind and on liberal-arts institutions.

In the State of Iowa the older form of university extension was early undertaken by the State university, and, although it is yet continued to some extent, the welfare type is now, as elsewhere, greatly in the ascendancy.<sup>1</sup>

The Smith-Lever Act defines cooperative agricultural extension work (as conducted by the State college) to be "the giving of instruction and practical demonstrations in agriculture and home economics to persons not attending or resident in said colleges in the several communities, and imparting to such persons information on said subjects through field demonstrations, publications, and otherwise." Aside from a flat appropriation of \$10,000 to each State (\$480,000 for the United States), the proportion of the Federal appropriation that goes to any State is determined by the ratio that the rural population of the given State bears to the rural population of the United States, as shown by the next preceding Federal census, on condition that a sum equal to that which comes from the Federal funds shall be provided within each State. The total appropriation for cooperative agricultural extension that must be equaled by other than Federal funds will be \$1,100,000 when the operation of the bill matures; it began with \$600,000 and increases \$500,000 each year for seven years.

With the enlargement of the fields and intentions of higher education, extension work, as well as graduate work, is a natural expression of the institution. It does not follow, however, that every department or unit in an institution may engage in extension work. The department must first be organized and developed effectively for its regular college teaching; the extension work, if it comes at all, should be the result of this internal maturity. In the case of more

<sup>1</sup> At the State university extension work was formally inaugurated by faculty action in October, 1891. Lectures of extension character were, however, given in 1887.

At Iowa State College extension work has been conducted almost since the foundation of the institution, and was being carried forward on a considerable scale when the first State appropriation was made in 1906.

or less competing institutions in any State, founded on public funds, there must also be a good working understanding between all of them. Manifestly, the division of extension work between such different institutions can not be geographical, particularly if the institutions are chartered as State institutions covering the Commonwealth. The differentiation must lie primarily in the dividing of subject matter, recognizing the fact that the cooperative extension work of the land-grant colleges is clearly defined by Federal statute.

The extension enterprises issuing from the three institutions in Iowa are uncorrelated. While there is no particular or damaging duplication at present, there is nevertheless danger in the situation, especially in municipal engineering and related lines, and the longer the condition continues the greater will be the likelihood of conflict. The difficulty lies in the nature of the situation in Iowa, whereby the people have not, by statute, accurately defined the spheres or at least the intentions of the institutions. No real reduction in the overlapping of public effort can be accomplished in the extension work unless it is accomplished also in the regular collegiate work. The remedy lies in adopting the principle of the major line of work elsewhere advised; from these major lines the extension enterprises may develop regularly and fully. This procedure would also have the effect of solidifying the extension enterprise within the institution itself, making it a regular part of the institutional life, issuing from the major lines, rather than a thing apart, organized in entire separation—although, of course, the administration of extension work will always demand special offices and sets of officers.

The commission recommends, as a means of reducing differences and adjusting difficulties between the three institutions in the field of extension work, that the board of education establish a conference composed of the persons immediately responsible for extension in each of the institutions and of a small special committee of the membership of the board itself, this conference to meet for discussion before the main enterprises for the year are laid out by the different institutions and as often thereafter as may be advisable. This conference should constitute a committee or council of guidance, without legislative authority.<sup>1</sup>

#### SUMMARY OF RECOMMENDATIONS.

1. The strict application of the principle of the major lines of work to the development of the extension enterprises of the three State institutions.
2. The establishment of a conference on extension work composed of members of the board of education and extension officers of the three institutions to discuss projects.

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<sup>1</sup> For an account of the methods and scope of the extension work of the three State institutions, see Appendix, p. 145.

## Chapter VII.

### DUPLICATION OF WORK IN PSYCHOLOGY AND EDUCATION.

The Iowa State Teachers College, at Cedar Falls, necessarily offers those subjects that are of special value to the professional training of teachers. Psychology and education are consequently furnished in reasonable amount, about 20 term hours of the former, about 30 of the latter (exclusive of some 20 hours of observation and practice teaching), and 2 hours each of logic and ethics.

This statement represents the operation of the schedule when repetition is disregarded. As a matter of fact three of the 5-hour education courses are given four times a year, another three times, and two twice in the year. So the total number of hours offered to students runs much higher than the figures given, although no one student could secure (exclusive of practice teaching) credit for more than the amount first mentioned. This program involves materially more, both of psychology and education, than the State law requires for first-class teaching certificates, but not more than is appropriate in a professional institution of this kind. Indeed, there might well be some development of the work in lines now either unrepresented or too meagerly represented.

At the University of Iowa there has been for many years a department of education and also a department of philosophy and psychology. In 1913 there was established a college of education with its own dean and special staff, which therefore replaces the old department of education. In recent years, in connection with the general growth of the university, a considerable amount of graduate work has been developed both in psychology and education. The organization of both branches of work appears to be sound, and the large number of students electing courses in these departments would seem to indicate that they are fulfilling in large measure a need definitely felt by the student body. No doubt the attendance of students on these courses is largely affected by the State law, which requires that first-class teaching certificates may be issued only to persons who have successfully passed 6 units of work in psychology and 14 units of work in education. At the present time the college of education is offering roughly 50 credit hours, excluding research work, but including the summer term; the department of philosophy and psychology offers in psychology approximately 36 hours, exclusive of research and inclusive of the summer session. These figures are approximate only, because the work necessarily varies slightly from year to year and is likely to be particularly variable in the summer term. Both departments are handling large groups of students in a creditable manner. (See Table 6.) There

would seem to be no reason why they should not be permitted to develop in response to any genuine demands as rapidly as the financial resources of the institution and a just regard to the similar development of other academic interests will permit.

One point at which difficulty has been encountered relates to the State law requiring that the schools shall offer instructions in household economics, agriculture, and manual training. Through its existing departments the university has been in a position to furnish proper instruction in domestic science and to do something toward training in the manual arts, but it is obviously not properly equipped to offer work in agriculture. Nevertheless, there are on its grounds at all times a large number of young people planning to fit themselves for the work of teaching in the schools of the State where they are likely to be called upon to offer or supervise elementary instruction in agriculture. More pressing has been the need of teachers already in the field who have not had this training, and who, in order to comply with the law, must secure such instruction at the earliest possible moment. Many such teachers can only come during the summer term, and the university has accordingly been put under pressure to furnish instruction in agricultural subjects at that time, whatever it might do during the remainder of the year. It need hardly be said that such work in the nature of the case duplicates to some extent work given at Ames and at Cedar Falls.

Work in psychology has been offered at the State college ever since its foundation. At first the offering of courses was very modest and designed to give a general introductory discipline to such students as might in point of fact be expecting to teach. With the rapid growth of the work in domestic science, and with the increasing emphasis on agricultural instruction in the schools, occasioned by the legislation so often referred to, it has come about that the number of students at any one time on the grounds at Ames expecting to become teachers is very large, running well up into the hundreds. The college has not unnaturally felt that it owed these young people the opportunity to train themselves reasonably for their function as teachers, not only in their subject matter, but also in those accessory branches most directly related to the technique of teaching, two of which, pedagogy and psychology, are actually required by the law. (See Table 6.) In response to these motives, the work in education has been developed very rapidly since 1911; the work in psychology somewhat more slowly, but nevertheless definitely. The program schedules approximately 24 semester hours of education, disregarding practice teaching (6 hours) and research, and 23 hours of psychology, including 2 of ethics; 16 hours of the education work are repeated in the summer, with 4 hours of practice

teaching work; 11 hours of psychology are thus repeated. The amount of work so offered is in theory designed simply to comply with the minimum requirements of the law; that is to say, 14 units of education are ostensibly offered and 6 units of psychology. As a matter of fact, appreciably more than this is offered, but under the conditions of election of courses that exist at the State college, it is probably true that no single student would normally find it possible to secure more than the amount called for by law. Evidently this can not be profitably taken all in one term, and if spread out to cover several terms, it almost inevitably results that the total amount offered is in excess of this legal requirement.

In the summer term teachers are coming in increasing numbers, as they are at the State university and at the State Teachers College, to equip themselves to meet the demands for instruction in agriculture, domestic science, and the manual arts. With the facilities available at Ames it is obviously possible to give admirable opportunity for accomplishing this particular purpose. In conjunction, however, with such courses the authorities at Ames have seen fit to offer an appreciable number of other courses covering work in school administration, in the principles of teaching, etc., work which has been most highly developed heretofore at the State university.

It appears, therefore, that as between Iowa State College and the State university there is at present an appreciable overlapping of work in psychology and education. That elementary psychology must be given at both places is apparently agreed upon by all concerned. That the work at the State college may well touch upon educational psychology and some of the more practical of the applied branches of psychology is also not called in question. There appears to be no intention to go further than this, and there is consequently at this juncture no division of opinion as between the authorities at the State college and the State university regarding the appropriate policy to be followed. The more advanced work will continue to be developed and carried on at the State university as in the immediate past. In education, however, while there is again no disposition to question the wisdom and necessity of giving the more rudimentary instruction in education at both places, such for example as courses in the history of education, in general methods, and the like, there is a division of opinion regarding the extent to which work in agricultural education may be properly undertaken at the State university, and regarding the extent to which work in school administration, with special reference to the interests of superintendents and supervisors, may be justifiably developed at the State college.

In view of the very great difficulty in training teachers so that they may comply with the new State law, it seems probable that the

resources of all the State institutions will for several years be strained to the limit, especially during the summer term. It is, therefore, very doubtful whether there ought to be any external limitation put upon the facilities offered at the several State institutions for giving work in home economics, agriculture, and manual training until the present force of teachers in the State schools has become satisfactorily equipped to meet these obligations. This may well take several years to accomplish, assuming that in the meantime there is no modification of the law.

It may, however, well be questioned whether, after this service has been substantially rendered, there may not properly be a somewhat rigorous delimitation of the work in psychology and education at the State college such as will prevent the development there of more than that amount of work requisite to meet the requirements of the State law for first-class certificates. It is the understanding of the commission that such a policy is, as stated above, avowedly that of the present administration at the State College of Agriculture and Mechanic Arts. It is, however, equally obvious that, unless some rigid supervision is exercised, the history of other institutions will be repeated and this work will little by little be allowed to grow until it has quite outstripped the original intentions of its founders. Certainly, with the exception of work in agriculture, the more advanced forms of training for teachers and especially for superintendents and supervisors who are to go into the higher branches of work in the State ought chiefly to be provided for at the State university. The facilities for such work are already fairly satisfactory there and can readily be developed into conditions of an entirely adequate kind with a smaller expenditure of time and money and among more congenial academic surroundings than elsewhere in the State.

Such development will require substantial expenditures, but they should unquestionably be made. There is decided need for a proper practice school at the university. As a makeshift the present arrangements may be accepted for a time, but they lack stability, and are imperfect in many essential particulars. The State can hardly justify a policy which involves doing poorly a thing that, if done at all, ought to be done supremely well. No informed person can doubt that this practice teaching work ought to be done, and it is to the interest of every community in the State that it be done in the best possible manner. If in this matter the State is to draw upon, or co-operate with, the school authorities of Iowa City or any other municipality, it should be under conditions that fully safeguard the larger interests of the State by assuring opportunities which both qualitatively and quantitatively are representative and adequate. Otherwise the State ought to rely wholly upon its own resources.

Replying more specifically to the inquiry of the State board of education, the commission feels that, as it has indicated above, a certain limited amount of work in education is justifiable at the State college of agriculture and mechanic arts. The obstacles at present encountered in the execution of any proposition to have teachers who are preparing to give instruction in agriculture take their agricultural work at the State college and their work in education at the State university or the State teachers college are of two main types, the one sentimental and capable of mastery, the other intrinsically educational and much more difficult to eliminate.

In view of the present attitude of mind among the students and the alumni of the State university and the State college of agriculture and mechanic arts, any discussion of migration between these two institutions may be dismissed as purely academic. Speaking broadly, no student will go from one to the other if he can possibly avoid it. Obviously this prejudice is intrinsically perverse and almost morbid, and with a more rational state of the public mind, could not for a moment be countenanced. It does, however, relate vitally to the actual facts in the present situation. Migration from Ames to Cedar Falls would encounter another type of sentimental prejudice, but one perhaps equally deep-seated. There is no material animosity between these two groups of students or between the alumni, but the students and graduates of the State college are not disposed to favor migration to the institution at Cedar Falls. However unjustifiable this attitude may be, it would at least make it difficult to induce students to go to the State teachers college in the necessary numbers to make a solution of the problem based on migration at all satisfactory. Moreover, there are difficulties on the side of inadequate accommodations at the State teachers college, commented upon elsewhere in this report (p. 55), which would render this proposal inadvisable without a very material enlargement of the staff and the plant at Cedar Falls.

The other difficulty concerns the fact that, in order to secure the best results in handling the courses in education, it is desirable that several of them should be given in chronological succession covering appreciable periods of time, so that the student may progress from the more elementary to the more advanced phases of the subject. If a student were to give his entire time for one year or even for one-half of a year to educational subjects alone, it would too largely compress the material and oblige the student to take parallel with one another courses which, to be handled most advantageously, should be given one after the other. Moreover, it is often highly desirable that the student should be carrying other subjects along with his work in education rather than be giving his time exclusively to that

topic. These considerations, while not constituting an insuperable obstacle to the proposition to have students migrate from Ames to Iowa City for their work in education, do create a very genuine difficulty which could hardly be altogether removed. Undoubtedly courses in education can be given occupying the entire time for half of a year or all of a year which students could pursue with advantage. But it would be distinctly less desirable than an equal amount of time in such courses spread over a longer total period; e. g., two or three years.

TABLE 6.—*Registrations in psychology and education courses, exclusive of summer sessions.*

Courses.	At the State university.				At the State college at Ames.			
	1912-13	1913-14	1914-15	Total.	1912-13	1913-14	1914-15	Total.
Psychology.....	279	326	408	1,013	271	242	366	879
Education.....	663	689	769	2,121	68	300	435	803
Total.....	942	1,015	1,177	3,134	339	542	801	1,682

### SUMMARY OF RECOMMENDATIONS.

1. The imposition of no external limitation upon facilities offered at the three State institutions for giving work in home economics, agriculture, and manual training until the present force of teachers in the State schools is equipped to meet the obligations imposed by the State law.

2. Thereafter the delimitation of work in psychology and education at the State college to the amount requisite to meet the requirements of the first-class State certificate.

3. The provision of better practice facilities at the State university.

## Chapter VIII.

### HOME ECONOMICS IN THE THREE STATE EDUCATIONAL INSTITUTIONS.

The department of home economics at the Iowa State University was first organized in September, 1913. Its establishment resulted from a prevailing sentiment that all women should find it possible during their college or university years to secure such instruction in the household sciences and such training in the technique of household arts as will enable them to administer their own households efficiently and to care for the physical, mental, and moral well-being of the inmates thereof.

The Iowa State College of Agriculture and Mechanic Arts was a pioneer institution in the introduction of home economics courses into



college curricula, the first work in this subject having been offered in 1869. The authorities in control of the institution at that time considered the instruction of women in the arts and sciences related to homemaking as in harmony with the spirit of the Morrill Act. The Federal Government, through the Department of Agriculture, has since given recognition to home economics as a legitimate line of instruction in land-grant colleges.

The courses in home economics in the Iowa State Teachers College have been arranged to meet the need in the State for teachers of these subjects in rural and elementary schools. The importance of this department in the Iowa State Teachers College has been greatly increased since the enactment into law of a requirement that domestic science be taught in all rural schools, which necessitates the equipment of 12,000 rural teachers with some knowledge of this subject.

Bearing in mind the reasons for the development of these various courses, the commission undertook to study the present status of home economics and to reach a conclusion as to the position it should occupy at each institution.

The department of home economics in the university is housed in one of the older buildings on the campus, but such alterations have been made as to convert this structure into an entirely sanitary, excellently lighted series of offices, classrooms, and laboratories. The equipment provided for teaching the various lines included under "foods," "dietetics," "clothing," and "textiles" is of most admirable type and so plentiful that no additional purchase of similar equipment will be needed for several years, even should the enrollment in the department be doubled. However, the consensus of opinion among home economics teachers is that household administration cannot be most effectively taught without a residence of some sort for use as a practice house. Since the department is otherwise so well equipped, it seems especially desirable that it should not be handicapped by the lack of this piece of apparatus. The initial expense is comparatively small and the cost of maintenance inconsiderable. Such expenditure is in the commission's judgment legitimate. The teaching force of the department is adequate and could easily care for an increase of 30 per cent in the number of students.

In view of reasons elsewhere set forth in this report, the commission considers it unwise to develop at the State university courses in home economics leading to degrees. The proper function of the department in the scheme of university instruction should be that of a service department. Because of both its practical and its cultural value, the continuance of home economics on this basis is amply justified in any institution frequented by women. That courses in the subject not only afford useful training in the arts and sciences involved in the maintenance of efficient homes, but that their

content tends to broaden and humanize the experience of women students is commonly recognized. A certain amount of duplication in the fundamental lines of home economics teaching between the university and the State college is naturally unavoidable, as in the case of English and mathematics and other subjects generally held to be indispensable in both liberal and technical curricula. Unwarranted duplication can be prevented if the university department is kept from expanding beyond the limits of a service department.

Having regard to the definite differentiation of the university department from the department at the State college, where home economics constitutes one of the major lines of work, the development of courses for the training of high-school teachers of home economics should not be encouraged at the university. But there is another field which the university department, as it expands, may enter legitimately and consistently with the principles here enunciated. It may contribute to the training of hospital dietitians. The conjunction at the university of a department of home economics with a hospital and a medical school of the first rank presents an unusual opportunity for the development of this type of instruction. Although the demand for trained women as prescribing dietitians is new, it will apparently soon be considerable. If the State desires to create such courses, they should be connected with the home economics department at the university. This is not to be understood, however, as implying a recognition of professional courses in home economics at the university.

The department of home economics, established in the Iowa State College of Agriculture and Mechanic Arts in 1869, was recognized as a separate division in 1913. This division includes not only the usual household economics subjects, but also the department of physical training for women. The arrangement is most admirable and fortunate in this particular institution, where practically all women students are enrolled in the home economics courses.

The division of home economics has overflowed the recently constructed fireproof building and now uses four rooms in the chemistry building. A new and adequate building is an approaching necessity and should be so constructed that a woman's gymnasium may be included in it.

The teaching of home economics in the State College of Agriculture and Mechanic Arts has followed well-defined lines. It has been planned primarily to train the college women to perform household tasks dexterously and to understand the scientific principles underlying these tasks, and it has prepared many women for teaching and directive positions. More recently there has been organized a strong technical course for women not desirous of receiving a college degree.

There are certain directions in which the division of home economics may be developed logically and consistently with the principles already emphasized in this report. The State board may appropriately encourage the enlargement at the State college of facilities for preparing women for various positions of responsibility in dormitories, tea rooms, hospitals, and cafeterias. To this end it seems desirable that the college cafeteria be placed under the charge of the home economics division, and as far as possible used as a practice place. The training of hospital dietitians, however, appears, in view of the considerations already mentioned, to be more fittingly the function of the university department of home economics in conjunction with the university hospital. The commission recommends that effective cooperation between the home economics division and the authorities in charge of women's dormitories be established. In addition to training high-school teachers of home economics, a task to which the State college is already committed, the institution may well respond to the growing demand for the preparation of teachers of this subject for trade and industrial schools.

The rooms set apart for instruction in home economics at the Iowa State teachers college are located in portions of three widely separated buildings and even in different parts of the city. One food laboratory is in an inconvenient basement room. In the two sewing rooms, which are on the second floor of an old building, the lighting is so poor that artificial illumination must be depended upon during most of the day. With the completion of the new building now under construction, the food laboratory conditions will be somewhat improved. In other respects the housing of the department will still be very unsatisfactory. Two full years in home economics are offered in the degree courses and the diploma courses. In the rural teacher-training course the work covers two terms. In compliance with statutory provision a 12 weeks' course is also maintained.

There are certain fundamental weaknesses in the organization of the department of home economics at the Iowa State Teachers College which prevent the highest efficiency in teaching. The professor in charge of the work in the degree and diploma courses does not oversee either the instruction offered in the rural teacher-training course and in the practice school or the classwork in home economics at study centers held in different parts of the State. That a subject or group of related subjects should be taught in any one institution by three separate and noncooperative groups of teachers is a more regrettable condition than a possible overlapping of similar work in three widely separated institutions. Such lack of departmental coordination can hardly fail to lead to divergent methods of teaching and to unequal stress upon different phases of the subject.

Almost equally unfortunate is, in the commission's judgment, the use of home economics classes in the rural teacher-training courses as practice classes for home economics students in the diploma courses. Rural teachers are required by law to prepare themselves to teach domestic science. There is at least an implicit obligation laid upon the State to furnish at the State training school appropriate facilities for this preparation. In view also of the commanding importance of their future work, these rural teachers should not be subjected to experimentation during the all-too-brief period of their professional training.

As indicated in other parts of this report, teachers carrying 20 hours of college teaching a week with full classes should not be allowed to serve in study centers on Saturdays, unless this added burden is offset by release from some of their intramural work.

The commission recommends the reorganization of the work in home economics at the State teachers college through the appointment of one well-trained woman as head of the department, who shall have the direction of all the teaching in home economics subjects done on the campus, in near-by practice schools, and in the study centers maintained throughout the State. She should be paid a salary comparable with those paid to other department heads.<sup>1</sup>

#### SUMMARY OF RECOMMENDATIONS.

1. The development at the Iowa State University of home economics as a service department along lines that will make it of greatest value to students majoring in other courses of study.

2. The avoidance by the university of courses that duplicate the work offered at the State College of Agriculture and Mechanic Arts in the preparation of high-school teachers.

3. The establishment at the university of special lines of work for the training of hospital dietitians.

4. The provision in the near future of enlarged accommodations for the department of home economics at the State College of Agriculture and Mechanic Arts.

5. The provision of opportunities for preparation in institutional and cafeterial management at the State college.

6. The provision of special courses for the preparation of trade and industrial school teachers at the State College of Agriculture.

7. The improvement of the accommodations provided for work in home economics at the Iowa State Teachers' College.

8. The reorganization of the work at the teachers college under a single head.

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<sup>1</sup> The salaries at present paid to home economics teachers at the State teachers college are also too low to enable the institution to compete in the open market for the best teachers. For a comparison with those paid at Ames and Iowa City see appendix, pp. 166, 171, 183.

## Chapter IX.

### SUBCOLLEGIATE WORK.

In the light of facts presented elsewhere in the report, notably in Chapters II and III, the commission has ventured to make a somewhat careful study of subcollegiate work, and submits herewith its conclusions. Two of the three institutions visited by the commission carry on subcollegiate work on a more or less extensive scale.

At the Iowa State Teachers College, in 1914-15, the general normal diploma course showed 45 men and 219 women registered, and the rural normal diploma course 109 men and 482 women. These, including a few miscellaneous registrations, made a total in these courses of 865 students. The requirements for admission to the normal diploma courses are "on the basis of the rural school diploma" or the first-grade uniform county certificate; the instruction is confined mainly to the subjects required for securing a uniform county certificate or the normal diploma and second-grade State certificate. The need for some pedagogical training for all teachers in the rural and grade schools is urgent in every State in the Union. The public-school system in the State of Iowa needs annually some three thousand new teachers, many of whom will, as a matter of fact, enter their work without any school training in pedagogy. The effort on the part of the State teachers college to meet these demands by offering these subcollegiate courses is to be commended, as an essential part of the service of this great institution. In view of the fact that no other normal schools exist in the State, and the further fact that the training given in the normal courses in selected high schools is at best superficial and incidental to other purposes of the high schools, the commission believes that a still larger proportion of the energies of the State teachers college might profitably be devoted to the subcollegiate work, both in the regular session and in the summer session until such time as the State shall respond to the need for better training for all the teachers in its public schools and especially those in the rural schools. There is little danger that the development of this work, which is so directly accordant with the original purpose of the institution, will be overemphasized, or that it will bring the institution into unfair competition with the standard secondary schools. A distinct advantage of these courses, as given in the State teachers college, especially the vocational normal course and the rural teachers course, is found in the opportunity for practice teaching, for example in the demonstration rural schools maintained by the teachers college, under conditions approximating those which the student will afterwards meet in her independent teaching. But, although these courses meet an urgent present need, one which will

undoubtedly continue to be felt for some years, the State teachers college should, as soon as possible, extend its courses for the training of elementary school teachers, and should require high-school graduation for entrance to them.<sup>1</sup>

The noncollegiate work at the Iowa State College is comparatively recent in its present form. The institution formerly combined secondary, vocational, and college work, but in 1910 it ceased to announce an academic curriculum enforcing the usual requirements of 15 units for admission. Beginning in 1911, it again announced an agricultural short course "of lower grade" than collegiate. "Noncollegiate work" as a title was resumed in 1912, and the college now spends about \$54,000 per year for this purpose. Since this is a special grant by an act of the legislature, it can not be said that the non-collegiate work is making direct drafts upon the regular income of the college. The fluctuation or experimentation in these noncollegiate and short courses is shown in its general features in the accompanying tabulation.

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<sup>1</sup> See Chapter III, p. 55.

TABLE 7.—*Courses in the Iowa State College—Registration.*

Catalogue of—	Designation of courses.	Organization of short courses or noncollegiate.	Registration.			
			Year.	Academic or non-collegiate.	Short course.	Special.
1908-9 1909-10	Academic. Academic; junior college, including academic, freshman, and sophomore classes.	Certain students over 20 years of age admitted "without examination" if they had "satisfactory preparation." Two-year course in mining engineering; clay working; 1-year course in poultry husbandry.	1907-8 1908-9	232 271		221. 157.
1910-11	Junior college, including freshman and sophomore years.	Two-year course in mining engineering, clay working, and agriculture; 1-year course in poultry husbandry and dairying.	1909-10			73 undclassified, 119 in music.
1911-12		Agricultural short course, "lower grade than collegiate"; 2-year course in clay working and agriculture; 1-year course in poultry husbandry and dairying.	1910-11		149	141 in music.
1912-13	Noncollegiate.	Agricultural short course (noncollegiate); students must be 17 years of age and have completed eighth grade; 2-year course in agriculture; 1-year course in dairying; 1-year course in poultry husbandry; faculty—president and deans, 1 associate professor, 3 assistant professors, 13 instructors.	1911-12	138 in agriculture.		
1913-14	..do.	Short course (same as in 1912-13); 2-year course in agriculture; 2-year home-maker's course; 2-year course in engineering (in trade-school work); 1-year course in poultry husbandry; 1-year course in dairying.	1912-13	218 in agriculture, 121 in music.		19 in agriculture.
1914-15	..do.	Students must be 17 years of age and have completed eighth grade; 2-year course in agriculture; 2-year course in engineering (vocational course); 2-year course in home economics; 1-year course in dairying.	1913-14	275 in agriculture, 22 in engineering, 24 in home economics; total, 321.		
1915-16	Noncollegiate (see 1914-15).	Faculty: President and deans, 4 professors, 3 associate professors, 4 assistant professors, 21 instructors, 1 assistant.	1914-15	249 in agriculture, 65 in engineering, 51 in home making; total, 365; 154 in music (of whom 92 are duplicates).		14 in agriculture, 6 in engineering, 4 in home making, 9 in industry.

Noncollegiate work is now offered in the following "two-year courses or curricula: Agriculture; home economics; vocational courses in engineering for electrical workers and stationary engineers, mechanical draftsmen and mechanics, structural draftsmen and building superintendents, surveyors and road makers; and a one-year course in dairying." For admission, a student must be at least 17 years of age and must present a certificate showing the completion of the eighth grade. High-school graduates, or students able to present 14 units, are not eligible to the noncollegiate course, with the exception of the one-year dairying course. Other students who have completed less than 14 units of acceptable high-school or academic work may secure some entrance credits, perhaps as many as 5 units of high-school work, through these noncollegiate courses, though the courses are not intended to prepare for the satisfaction of entrance requirements. One instructor reported that the majority of his students had had some high-school work, and a few almost four years of such work. This noncollegiate work should not be confused with the two-year college course in agriculture, for entrance to which students must present the same requirements as for the four-year collegiate course. As will be noted in the table, the enrollment for 1914-15 showed 249 noncollegiate students in the division of agriculture, 65 in engineering, 51 in home economics, 154 in industrial science (chiefly local students taking music).<sup>1</sup> The total of noncollegiate students, therefore, excluding music students, is about 365.

Instruction for noncollegiate students is given by 32 departments, corresponding approximately to those of the regular collegiate divisions. They include mechanical engineering, structure design, veterinary medicine, psychology, and bacteriology, as well as the agricultural subjects. Much of the instruction is given in the same laboratories, and in a very few cases by the same instructors as in the college proper. The faculty of the noncollegiate section consists of the president, the deans of agriculture, engineering, home economics, industrial science, and veterinary medicine, and 4 professors, 3 associate professors, and 4 assistant professors doing noncollegiate work. Besides these there are 21 instructors, 5 of whom appear to have no college degrees. With regard to the character of the instruction offered, an instructor in animal husbandry, for example, said that he gave to noncollegiate students substantially the same lecture and laboratory work as were given to collegiate students, but gave it more slowly. It was his judgment that most of the students in his classes could do the college work. While the noncollegiate teaching staff is kept fairly well separated from that of the college proper, the 365 noncollegiate students create as real a pressure upon the space

<sup>1</sup> Music is listed as one of the subjects in the division of industrial science; see p. 70.



and facilities of the institution as would approximately the same number of collegiate students. In a statement to the commission, the president of the institution declared that the college needed a building for the work of the noncollegiate section and that it ought to develop that work in engineering and home economics, as well as agriculture, though he said that the State had not thus far responded to the arguments for this development.

The commission is not much impressed by the arguments urged for the existence and development of this noncollegiate work by the State college. These are, in brief, that the college has to give it; that it thus takes care of "fine young men and women, not graduated from the high school, who have finished the eighth grade but want a little intensive, practical instruction"; that these students should have the same chance as other students, though they are not prepared for the college work, which is the main work of the institution. All these arguments could be urged about as strongly for other and perhaps lower grades of instruction by the college. The students who are ill-prepared for the regular work of the institution will probably always be a problem. Granting that the obligation to care for these students is laid upon the State, it does not follow that the work should be undertaken by an institution of collegiate standing as an appendix, or distraction. The State has once decided wisely, as the commission believes, not to mix secondary, collegiate, graduate, and research work at the State college. The commission therefore recommends that the State college give up for a second time all noncollegiate instruction (except limited short courses in winter or in summer for special groups of students), and give it up at the earliest possible date. This date should be announced in advance, so that adequate provision could be made by the State for the groups of students now represented in the noncollegiate courses. The State college would thus be free to discharge still better the large and increasingly heavy obligations which will inevitably tax to the limit all the resources the State will put at its disposal as a college of agriculture and mechanic arts. The commission is convinced that in the long run the money devoted to noncollegiate instruction will be practically a deduction from the total revenues that will be devoted to the institution by the legislature. In this conviction the commission is supported by the statement of so distinguished an authority as Dean Eugene Davenport, of the college of agriculture of the University of Illinois, who writes:

Even though special funds may at first be provided for the handling of such a group of students in an institution doing collegiate work, yet the time is bound to come, as the numbers increase and as the demands upon the institution multiply, when this group of students thus introduced will result in definite subtraction from the work which an institution may do of a strictly collegiate grade whether we are to regard the space required, the teaching power of the faculty, or the funds which may be provided for the institution.

Much more elaborate provision than at present needs to be made for the class of students now cared for by the noncollegiate courses of the State college. Furthermore, these provisions should be distributed about the State rather than centralized as a side issue or in the proper work of the State college. The field should be inoculated at many points, not at one only. The State is already subsidizing high schools to undertake special forms of secondary work, such as agriculture, home economics, and normal training. Instead of creating separate agricultural schools the commission urges the subsidizing of strong, progressive, strategically located high schools, which shall develop special vocationalized courses for the class of students under consideration. The State may well go to the extent of providing special local buildings (perhaps including dormitories) and farm tracts for the schools in question. Courses in these schools should not be those of the ordinary high school, but should be courses particularly adapted for the students who would not, under the usual conditions, return to the high school. The commission recommends that all work of this character should be under the general supervision of the State college. To put it in other words, this group of strong high schools, whether consolidated, or county, or union high schools, would perform for several thousand students the services which the State college now performs for a few hundred, many centers of impulse would take the place of one, and the directive, inspiring leadership of the State college would operate widely through permanent schools linked closely with many rural communities as well as through occasional extension groups.

#### SUMMARY OF RECOMMENDATIONS.

1. The continuance of subcollegiate work at the State teachers college.
2. As soon as other provision can be made, the abandonment by the State college of agriculture and mechanic arts of all noncollegiate work, except for limited short courses, in winter or in summer, for special groups of students.

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## Chapter X.

### COURSES IN JOURNALISM.

The commission has investigated the matter of journalism, which was referred to in the memorandum submitted by the State board. It finds that some courses in journalism are offered at both the State university and the State college, but that there is, at present, no endeavor at either place to establish a school, or college, of journalism. As will appear in the following paragraphs, the commission

does not regard the establishment of such a school or college as at present desirable.

The work at the Iowa State University is confined to one 3-hour course running through the year, offered in the department of English. It is given under the title "The Newspaper," and discusses the principles and practice of journalism. It consists of lectures, the writing of "newspaper stories," articles, etc., with laboratory or practice work done upon the college paper, "The Daily Iowan," which is under the exclusive editorial direction of the instructor in this course. The establishment of this course, and its relation to the university paper, which is in reality a purely private enterprise, absolutely owned by one or two men, have a twofold purpose: First, to give some general instruction in the elements of news writing for students looking toward newspaper work as a profession; second, to secure the control of the college daily, whose conduct some of the faculty had looked upon as not creditable to the university. This control was so desirable, in the judgment of the department of English and the university authorities, as to warrant the payment of a salary of \$1,900 to the instructor, who gives only the one 3-hour course in the department, and devotes the rest of his time to the editing of the college paper and to publicity work for the university. Granting that the instructor appointed to the place is unusually capable and experienced, it is still a question whether it was wise to make such an outright addition to the budget of the department of English, which is already strained to meet the demands of undergraduate instruction, and which has scarcely begun to develop graduate work. The editorial and reportorial work on the college paper is conducted by the instructor and the members of his class; the advertising and financial part of the business of the paper is controlled entirely by the owners. Twenty-three students are taking the course in 1915-16. The student body of the university is said to be satisfied with the present arrangement for conducting the university paper, an arrangement which was characterized by a member of the faculty as "not a system, but a man."

This course does not commit the university to any formal development of a curriculum in journalism, leading to a degree, though such may be the outcome of this beginning. Probably another year will see an additional course offered, under substantially the same conditions. The university authorities have not been convinced, however, that there is a strong demand for college-trained journalists. This opinion was more or less confirmed by the responses received by the commission to a questionnaire sent out to all the publishers of periodicals in the State. The publishers were asked to state how many persons were employed in their editorial and business departments, excluding compositors, etc., how many of these were college

graduates, how many were graduates of institutions in Iowa, and, lastly, whether there was, in their judgment, a large and growing demand for college-trained men, comparable to the growing demand for men similarly trained for the professions of law and engineering.<sup>1</sup> Replies were received from 320 newspapers or periodicals. Of these, 200 replied to the last question in the affirmative, but only 49 supported their answers with any comment or argument; 94 answered in the negative; of these, 27 added comment; 20 failed to answer the last question, and 6 were noncommittal. The larger newspapers of the State were about evenly divided in their opinions as to the demand for college-trained men. The same is true also of the special journals like those dealing with agricultural matters.

The work in journalism at the State college is announced under the somewhat inapt title of "agricultural journalism." It is in reality a group of brief courses in technical journalism, under the direction of a professor who gives part of his time, an assistant professor, and student assistants. Nine courses are offered, involving a total of 15 hours. There are three general courses of one hour each, and three groups of two-hour courses dealing with the special application of journalistic practice to agriculture, engineering, and home economics, and three separate two-hour practice courses corresponding to each of these divisions. Two courses, in "Newspaper management" and "Management of a technical journal," one hour each, are given in connection with the actual making of the "Iowa Agriculturist." They follow the two-hour courses in "Beginning Technical Journalism." The department of agricultural journalism now includes also home economics journalism (since 1911) and engineering journalism. The department was established in 1905 through the grant of \$1,000 annually by Mr. John Clay, of Chicago, whose subsidy has continued to the present time.

The commission commends the form of instruction attempted here, since it gives a sensibly limited opportunity to students to acquire facility in writing technical paragraphs and articles for specialized periodicals. Any considerable enlargement of the present offerings of the department would, in the judgment of the commission, be open to objection.

#### SUMMARY OF RECOMMENDATIONS.

The approval of the work in journalism now offered at the Iowa State University and the Iowa State College of Agriculture and Mechanic Arts and the limitation of it to approximately its present scope.

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<sup>1</sup> For this letter see Appendix, p. 155.

## Chapter XI.

### COURSES IN COMMERCE OR A SCHOOL OF COMMERCE.

The State University of Iowa has for a good many years had strong courses in political economy, political science, and sociology, and for a time announced these as a school of political and social science and commerce. Its aim was stated to be: "To give a complete general view of all the political and social sciences, to foster their development, to assist in preparation for the various forms of public and social service, and to provide training for the wider avenues of business." In its faculty were included professors of history, law, and medicine.

In 1915 an effort was made to secure from the legislature a special appropriation for a school of commerce, which was to supplement, even to supplant, the organization just mentioned. In support of this proposal to develop a separate school or college of commerce, a brief was submitted to the legislative committee. This document, which the commission has before it, may be taken as the strongest presentation which could be made in favor of the proposed school of commerce. As a proof that there is an unmistakable demand for college graduates trained for business, social, and public service, it is asserted that one-fourth of the living male graduates of the college of liberal arts of the university are engaged in business, and that the percentage increases with each graduating class. According to the estimate of the registrar, 50 per cent of the men in this college will go into business. In the departments of this college the university had 1,200 registrations. The large number of letters received by the university commending the efforts of the extension division to serve the business interests of the State, which call upon the university for graduates competent to fill business, governmental, and social-service positions, and the demand for teachers of commercial subjects are likewise adduced in support of the proposal to erect a school of commerce. The brief cites the success and popularity of schools of commerce in such institutions as Harvard, Pennsylvania, New York, Illinois, Northwestern, and Chicago. It points out the increasing recognition of the fact that business men, like lawyers and engineers, must be thoroughly grounded in the principles underlying their work and instructed in the most up-to-date organizational practices. Attention is also called to the importance of furnishing those who would enter the industrial and social fields of the State with as good an equipment for service as is offered to those who would develop agricultural interests. For the support of this proposed school a considerable sum of money was asked, which should be comparable with the annual budgets of similar schools at the University of Illinois (about \$34,000) and at Northwestern University (about \$57,000).

The commission points out in this connection that the school or college of commerce in such institutions as Harvard and Illinois includes in its organization the department of economics, which is quite as much a service department for all the liberal arts curricula as it is a technical department for the college of commerce.

While the legislature did not make the appropriation asked for, the university appointed a new man to the professorship of political economy, sociology, and commerce, to take up most of the work relinquished by Prof. Loos, and to develop it with especial reference to the demands just mentioned. The commission has examined a schedule of the proposed courses for 1916-17, which indicates the desires of the department under its present leadership and the direction in which it would like to develop. A part of such a plan of development would be the addition of at least one full-time man for 1916-17 to take the place of a part-time man, to conduct theoretical courses, and the addition of two or three men in 1917-18 for the elaboration of courses in salesmanship, advertising, accountancy, commercial teaching, and the like. The total number of registrations for 1914-15 was 722, representing 475 persons. The corresponding figures for 1915-16 (November) were 860 and 560.

Before undertaking to formulate an opinion, the commission has also consulted persons outside the university and outside the State college who are intimately acquainted with conditions in Iowa. It appears to the commission that there is not a close parallel between the obligation of the university and that of such institutions as Harvard University, New York University, Northwestern University, and the University of Illinois, all of which draw very large numbers of students from great urban communities. Iowa is essentially a State devoted to agriculture and retail business, with many cities of medium size, but no great cities having highly complex business organization and continent-wide or international relations. While the commercial and industrial development of the State will perhaps go on rapidly, the probability of a sharp intensification of the demand for men trained in narrowly specialized courses in commerce is not very convincing as an argument for elaborate specialization in the curriculum of the university.

If a college or school of commerce were to be developed in Iowa, it obviously would belong in the university, where it would receive the best form of reenforcement in the allied subjects of history, political science, mathematics, modern languages, and psychology. The commission, however, is unconvinced that the university or the State would be warranted at the present time in proceeding to create and develop a separate college or school of commerce in the university and recommends that the present movement be confined to a moderate expansion and better correlation of the courses now offered

in different departments of the university, which would furnish the sort of training and develop the sort of interest which a progressive and ambitious business man should have. The three curricula proposed by the department—"Business course," "Secretarial course," and "Commercial teachers' course"—each leading to the degree of bachelor of arts in commerce, appear to be not much more than a broad liberal arts course, with a major in economics somewhat expanded. A college built upon this model would be a single-department college, most of whose work would be done in other colleges and departments. If accounting and economics were separated, it would make two departments at most. In the outline of "proposed courses" for 1916-17, the instructor in accounting is put down for 12 courses totaling 28 hours, and running into such refinements of the subject as "accounting for pharmacists." Under the heading of "Economics and business" are announced also courses in "immigration," "social statistics," "vital statistics," "business English," and "principles of persuasion and conviction." There is undoubtedly a tendency among the universities of the country to extend quite considerably those courses specially designed to interest students who are to go into business. Some persons even go so far as to claim that curricula for this purpose should be designed so as to make them quite as professional as courses in engineering, law, or medicine. The time may come when these curricula composed of courses in close sequence, leading to the preparation of technical experts in business, will be developed, but such curricula would be rather in the nature of graduate courses like those offered at Harvard University and Dartmouth College, than undergraduate courses made up in large part of courses in liberal arts and sciences.

Many advocates of improved training for engineers have, in recent years, swung away from the highly technical prescribed curricula toward a curriculum containing a larger amount of liberalizing material, or perhaps even to the requirement of one or two years of liberal arts and science work as the preparation for technological or engineering work, in the same way that one year of liberal arts work—sometimes two—is prescribed for admission to a standard medical or law school. When preparation for business is ordained in a similar manner upon a professional basis, it will be important to create a separate college organization and to back it with liberal funds for men and equipment. The expense of such a college will be great, owing to the fact that the university, in making appointments to its teaching staff, will have to compete in the business market for men of special talent and success. Twelve thousand dollars, which has been suggested as the sum that could be better put into business courses than anywhere else in the university, would be little more than a respectable beginning. Such men will be in great de-

mand and will command salaries, as a rule, quite beyond the ordinary university salary. If the university is to develop a college of commerce for the training of leaders and experts in business organization and enterprise, it can not afford to man its departments with mediocre men. The best men must be paid high salaries, salaries determined by the commercial or industrial market, and not by the educational market alone. In the long run, however, it will be economical to secure such men.

The commission urges one other reason for caution in the development of a distinct collegiate organization in commerce and business. The business and commercial interests of the State must demonstrate a permanent and cumulative demand for men who have had a professional or semiprofessional business training, similar to the demand recently generated among the agricultural interests, before the university will be warranted in proceeding beyond a strong departmental organization in economics, accounting, and commerce. When such a demand is demonstrated, and a commanding group of experts has been gathered together in the university, efficient service may be rendered to the State through investigation of commercial and industrial problems and practices, through extension courses, and through short courses offered at the university itself.

#### SUMMARY OF RECOMMENDATIONS.

The moderate expansion and better correlation of courses now offered in various departments of the Iowa State University rather than the creation of a separate college of commerce.

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## Chapter XII.

### A STUDY OF THE USE OF BUILDINGS AT THE IOWA STATE INSTITUTIONS.

A considerable portion of the State board's memorandum related to the building policy of the State at the three institutions. It requested the investigators to consider this policy with care, to study thoroughly the use of building space at each of the institutions, and finally to give definite advice as to the erection of a new building at the State university to take care of the departments of botany and geology. The commission has gone into these questions as carefully as the time and the money allotted to the survey would permit and submits this statement, which it hopes may be of value to the institutional authorities not only in determining the building program for the next biennium, but also in future estimates of the use of space.



It should be noted that all percentages, ratios, and other analyses given in this chapter or in the appendix are absolutely dependent upon the accuracy and completeness of the information submitted by the authorities at the State university, the State teachers college, and the State college of agriculture and mechanic arts for their respective institutions. The original data from which these results have been obtained are on file in the office of the Bureau of Education at Washington. Every effort possible under the limitations of time and finance has been made to correct discrepancies in the data received and to verify all calculations that are part of this report.

In considering the effective use of the floor space of any educational institution certain fundamental facts must be kept in mind. It should be fully recognized and appreciated at the outset that the ideal of the engineer—full utilization of a plant's facilities, so that every foot of plant is productive, leads to production, or, as unproductive, serves to aid production—is not only impracticable, but in fact impossible as a standard of measurement for academic operations. Teaching is not production in the ordinary sense and is subject to many factors and variants not encountered in industry. Laboratory equipment, for instance, must necessarily be highly specialized for the work of its science, whether natural or applied, and beyond its employment by that science in the process of instruction (in turn governed by unique considerations of brain fatigue, working light, and like expediencies) such "plant machinery" must perforce lie idle. Further, the human factor is not an operating factor producing material goods, but is concerned with teaching or with research; either with the transference of the vital thought from the mind of the teacher to the mind of the scholar, or with pushing outward the boundaries of knowledge through research.

Largely owing, however, to the very fact that the product of academic institutions is difficult to measure quantitatively, avoidable wastes have crept in in certain places, unnoticed by the faculties absorbed in the carrying on of their teaching and research pursuits. The figures and analyses given here indicate some of these overlooked wastes at the Iowa State institutions.

This study involves only actual conditions that are definitely expressible in the form of the number of square feet of floor space, the number of students, or the number of hours. Theories of construction and of use are purposely avoided, except in so far as the facts are interpreted for the special benefit and at the special request of the building committee of the board of education.

The total floor space of any building used for industrial purposes is composed of productive and unproductive space. Owing to the possible ambiguity of these terms when applied to buildings used for academic purposes, the terms "instructional" and "accessory" will be used in this report. Teaching space is obviously instructional

space; all other space, so far as the present purpose is concerned, is accessory, or, in some exceptional cases, a "combination" of instructional and accessory elements. The combination space set forth in the tables is used for purposes peculiar to the method of instruction or the construction of the building. In industry, as already indicated, productive space is most valuable when so designed and utilized as to give maximum opportunity for production. Unproductive space is most valuable when the maximum amount of it effectively serves the ends of productive space.

Instructional space, as the term is employed here, means that space used for the primary function of the institution—teaching—and is distinguished by the presence of a student or group of students for purposes of instruction. Under this head fall—

1. *Classrooms*, or space suitable for recitations or lectures in any course, regardless of content, where working apparatus is not required.

2. *Laboratories*, or space having individual equipment so specialized to a particular purpose that each student is enabled to pursue his task irrespective, in general, of the progress of others in the room at the same time.

3. *Mixed space*, where existing in a few cases, is simply an inseparable combination of classroom and laboratory elements. It should not be confused with "combination" space, defined above as a mixture of instructional and accessory space. For instance, an equipped laboratory in which some spasmodic recitations may occur does not, for present purposes, lose its essential laboratory character by such use unless the authorities have plainly indicated on the floor plans or rosters that it is a mixed room.

Accessory space, although not used specifically for teaching purposes, is to a large degree essential to the plant because of the physical features of building construction and the needs of the administrative functions. Waste or efficient use may equally well occur in instructional or in accessory space. Accessory space is classified into—

1. *Administration*, which includes all offices; storage and supply rooms; repair shops, tool rooms, and janitors' rooms; official reception rooms; vaults; document rooms; power plants and substations; battery rooms; private research laboratories, when same are not for purposes of student instruction; and the like.

2. *Other accessory space*, which groups all space, both necessarily and unnecessarily accessory, not otherwise classified, such as museums, libraries, and reading rooms, exhibit and display rooms (when separate from teaching space); locker, dressing, and rest rooms; halls and corridors; stairs and elevator shafts; dead floors; space used by interests outside the institution proper (State highway commission

at Ames and Y. W. C. A. at Cedar Falls); lunch rooms and literary society rooms; and the like.

Two other definitions are necessary to an understanding of the facts presented below. Instructional space is further classified as—

1. *Scheduled space*, i. e., that for which the commission has received a statement of definite student capacities and definite hours of actual use for teaching purposes, and

2. *Unscheduled space*, i. e., that teaching space for which either the capacity, or the hours of use, or both, were not furnished in response to the request for such data.

Accessory space, of its own nature, is “unscheduled.”

The purpose of the statement of these subdivisions is to narrow down the inquiry to a manageable scope which will focus all available facts on the particular question asked by the board of education, viz: “Is the space provided for classroom, laboratory, and office purposes being economically used?”

#### METHOD OF INVESTIGATION.

Ten principal buildings were selected at the State University, eight at the State Teachers College, and ten at the State College of Agriculture and Mechanic Arts for detailed study as most normal and typical of the respective institutions and most nearly comparable as between the institutions. The new chemistry building at Ames could not be considered because of its incomplete equipment.

The analysis of the facts gained from a study of these buildings was further concentrated on the “scheduled” teaching or instructional space, which, as defined above, is that space used regularly each week by a definite number of students at definite hours, and for which the occupancy and time ratios explained later may be calculated. The “unscheduled” instructional space and the accessory space may be compared as to relative quantity, but not as to whether utilization is effective. On the basis of such principles, the commission can not say, after an examination of the floor plans and a broad observation of the three institutions, that a certain office is or is not used effectively. It can only indicate, on the basis of the data obtained, how much the instructional space is used and how the three institutions compare, leaving the determination to the board of education and to the institution in question as to whether or not that quantity is or is not effective utilization. By reducing these comparisons to a percentage basis it is not intended to fix 100 per cent or any other standard of effective academic use; 100 per cent utilization is wholly impossible in any educational institution. The figures showing the proportions of scheduled to all instructional space, of scheduled to total, of instructional to total, and of accessory to total, at the three institutions on the same basis of classification, appear in the appended tables.

Two methods might have been employed—the method of averages and the composite method.<sup>1</sup> The method of averages used throughout this investigation to determine the facts is given here in full as applied to the average use of the classrooms at the State University of Iowa.

By the method of averages it is found that 49.53 per cent of the *actual* capacity of classrooms at the State University of Iowa is used 87.13 per cent of the time, or an average use of 18.39 per cent.

The relation of the capacity of each room to its theoretical maximum capacity, or the increased utilization which would result from changes in seating arrangements and the like, depend so largely upon the policy of the institution (and in the case of the laboratories, upon the content of courses) that they at once involve elements outside this report.

*Explanation of the occupancy ratio "O."*—The percentage of the classrooms' actual capacity actually occupied is given the title "Occupancy" (O). The occupancy (O) equals 49.53 per cent for the classrooms of the State university. The method of obtaining the ratio "O" is as follows:

The maximum occupancy for any room (the maximum number of students regularly in the room at any period of the week), plus the minimum occupancy, divided by 2, equals the average occupancy. The average occupancy, divided by the number of working units (capacity) of the classroom reported by the authorities, equals occupancy ratio "O" for the given room. To obtain the occupancy ratio "O" for the classrooms in any given building, obtain the sum of the occupancy ratio "O's" for all classrooms and divide by the number of classrooms regularly scheduled in such building; this equals the classroom "O" for the building. To obtain the occupancy ratio "O" for a group of buildings, the sum of the classroom "O" ratios for the buildings having scheduled classroom space, divided by the number of such buildings, equals the "O" of the plant's classrooms, or, in the case cited, 49.53 per cent.<sup>2</sup>

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<sup>1</sup> By the Composite Method is meant—

- (a) The assumption that all classrooms in a given building are as one classroom, all laboratories as one laboratory, etc.;
- (b) The combination of the individual room occupancies, capacities, periods used, and periods in week (number of rooms multiplied by 44) to find the "O," "T," and "OT" for the composite classroom, laboratory, and mixed space; and
- (c) The further combination of the class, laboratory, and mixed ratios to yield the "OT" ratio for the plant, which would be—

$$\frac{\text{Total occupancy} \times \text{total periods used}}{\text{Total capacity} \times \text{total periods in week (Number of rooms} \times 44)} = \text{"OT"}$$

In view of the fact that the method of averages better serves the purpose of this analysis, the composite method is, in the opinion of the Commission, one of purely mathematical interest. To avoid confusion, the elements just outlined are not developed further in this report.

<sup>2</sup> Together with each such calculation of occupancy as that given above should exist a note showing the area and the relation of capacity to area, or the number of square feet for each working unit.

"Plant," wherever used here, means the buildings selected as listed in the tables. The following numerical example may serve to show the method still more clearly:

*Example:* Room 109, Liberal Arts Building (or any other room, X).

Area, 710 square feet.

Seats, 36=capacity.

Square feet for each unit equals area divided by number of seats =  $\frac{710}{36} = 19.7$  square feet.

Maximum occupancy per period, 33.

Minimum occupancy per period, 7.

Average occupancy per period, 20.

"O" ratio for room,  $\frac{20}{36} = 55.5$  per cent.

Adding the "O's" of the 23 classrooms in the building and dividing by 23 gives the average classroom O of this building. Adding the average classroom O of all buildings under consideration and dividing by the total number of buildings having scheduled classroom space (7) equals the classroom O for the plant=49.53 per cent.

*Explanation of the time ratio "T."*—The percentage of the total scheduled time that classrooms are actually occupied is given the title "Time" (T). In the case just cited the time ratio (T) equals 37.13. The method of obtaining the ratio "T" is as follows:

For any single room the ratio "T" is obtained by dividing the number of periods per week that the room is regularly occupied by 44 (the total possible teaching periods per week).

For any given building the sum of the resulting percentages for all classrooms divided by the number of classrooms thus regularly scheduled in each building equals the classroom T for the building.

For the whole plant the sum of the T ratios for all buildings having scheduled classroom space divided by the number of such buildings equals the T of the plant's classrooms, or, in the case cited, 37.13 per cent.

The method used for T is in general similar to that used for O, but a numerical example may serve to clarify the process:

*Example:* Room 109, Liberal Arts Building (or any other room, X).

Periods room is used, 18.

Periods in week (constant), 44.

T ratio for room equals  $\frac{18}{44} = 40.9$  per cent.

Adding the T's of the 23 classrooms in the building and dividing by 23 gives the average T of the classrooms of the buildings. Adding the average classroom T of all the buildings and dividing by the total number of buildings having scheduled classroom space (7) equals the classroom T for the plant, equals 37.13 per cent.

*Explanation of the average use ratio "OT."*—The average use ratio (OT) may be defined as the product of the occupancy and time ratios; that is, the average use is made up of both factors, average occupancy and average time used.

The determination of the factor "OT"<sup>1</sup> (average use) for the classrooms at the State University of Iowa then becomes 49.53 per cent of space use (O) multiplied by 37.13 per cent of time use (T)=18.39 per cent average classroom "use" for the plant (OT).

To give a single numerical example.

*Example:* Room 100, Liberal Arts Building (or any other room, X).  
55.5 per cent (O) × 40.9 per cent (T) = 22.7 per cent (OT).

The same percentage of use may be calculated by this method:

$$\frac{\text{Average occupancy (20)} \times \text{periods used (18)}}{\text{Capacity (36)} \times \text{periods in week (44)}} = \frac{360}{1584} = 22.7 \text{ per cent (OT).}$$

Either of the methods just given applies only to computations for single room OT. To arrive at the plant's classroom OT, multiply the average classroom O for the plant (see explanation and example above) by the average classroom T for the plant, which equals 18.39 per cent, in the case of the State university.

The examples just given deal only with classrooms; the statements below, A, B, and C, include also laboratories and mixed space. The method used is, of course, the same.

#### A. STATE UNIVERSITY OF IOWA.

##### 1. Instructional space is 39.757 per cent of the total space.

Scheduled space is 69.415 per cent of the instructional and 27.415 per cent of the total space.

*By the method of averages—*

- (a) 49.53 per cent of the classroom's actual capacity is used 37.13 per cent of the time, or an average use of 18.39 per cent.
- (b) 51.728 per cent of the laboratories' actual capacity is used 37.65 per cent of the time, or an average use of 19.47 per cent.
- (c) 58.613 per cent of the mixed space capacity is used 37.103 per cent of the time, or an average use of 21.76 per cent.

Combining (a), (b), and (c),

- (d) Of the plant's *total scheduled space* (classrooms plus laboratories plus mixed), 53.732 per cent of the capacity is used 36.852 per cent of the time, or an *average plant use of 19.815 per cent (OT)*.

*Explanation:* 53.732 per cent = Occupancy ratio (O) = the average of the "O" ratios of all buildings, each of which is an average of the "O" ratios of the class, laboratory, and mixed space (considered separately in (a) (b) (c) above) of that building, i. e., an average of the use percentages found by dividing the sum of each building's "O" by the number of buildings having an "O" ratio.

36.852 per cent = Time ratio (T) = the average of the T ratios of all buildings, as for O, just stated.

19.815 per cent = Average use ratio (OT) = 53.732 per cent × 36.852 per cent, which combines the factors of space and time to show an actual use of time-capacity of 19.815 per cent for the plant.

##### 2. Accessory space is 54.732 per cent of the total space.

<sup>1</sup> It must not be assumed that the percentages given here can be compared in any way to 100 per cent. It is not known what an effective percentage for academic utilization of space is. Probably from 35 to 50 per cent would be as high as could be reasonably obtained under favorable conditions at present, and this percentage is a purely empirical one. As far as is known, only one study of this nature has been

## B. IOWA STATE TEACHERS COLLEGE.

## 1. Instructional space is 44.876 per cent of the total space.

- (a) Scheduled space is 87.248 per cent of the instructional and 39.154 per cent of the total space.

By the *method of averages*—

- (a) 60.32 per cent of the classrooms' capacity is used 38.692 per cent of the time, or an average use of 23.34 per cent.  
 (b) 65.638 per cent of the laboratories' capacity is used 34.806 per cent of the time, or an average use of 22.83 per cent.  
 (c) 62.46 per cent of the mixed space capacity is used 39.873 per cent of the time, or an average use of 24.94 per cent.  
 (d) Of the plant's *total scheduled space*, 59.997 per cent of the capacity is used 39.868 per cent of the time, or *an average plant use of 23.93 per cent (OT)*.<sup>1</sup>

## 2. Accessory space is 53.239 per cent of the total space.

## C. IOWA STATE COLLEGE OF AGRICULTURE AND MECHANIC ARTS.

## 1. Instructional space is 44.157 per cent of the total space.

- (a) Scheduled space is 66.082 per cent of the instructional and 29.177 per cent of the total space.

By the *method of averages*—

- (a) 46.757 per cent of the classrooms' capacity is used 41.72 per cent of the time, or an average use of 19.508 per cent.  
 (b) 58.541 per cent of the laboratories' capacity is used 56.25 per cent of the time, or an average use of 32.928 per cent.  
 (c) 50.512 per cent of the mixed space capacity is used 45.65 per cent of the time, or an average use of 23.057 per cent.  
 (d) Of the plant's *total scheduled space*, 53.642 per cent of the capacity is used 49.299 per cent of the time, or *an average plant use of 26.444 per cent (OT)*.<sup>1</sup>

## 2. Accessory space is 49.8 per cent of the total space.

## RESULTS AND CONCLUSIONS.

Reference to the tables in the appendix will disclose many detailed comparisons which should be valuable to all concerned with the problem of effective utilization. The subject is too great for more than a cursory outline of the salient points.

All the facts, condensed by the same process and brought to a common focus, indicate clearly that the State college at Ames is making the most use of its plant, comparatively, and that the State university, if it feels the pressure of congestion at any point, may find a solution of its difficulty in changes in the rostering of students.

The occupancy ratio, however, may reasonably be low in some cases because of physical limitations, in addition to student roster factors. The room capacity, especially in the older buildings, may be large (40), while a section of students may, by the settled and wise policy of a department or institution, be limited to 20 or less. The

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made, and there the local conditions make a fair comparative basis impossible. The most that can be said is that the figures given here indicate the need of further careful study and collection year by year of data of this type.

<sup>1</sup> See note on p. 105.

desired size of the section has much to do with the utilization indicated by the occupancy ratio. This matter deserves thorough consideration with a view to making needed alterations and fitting future buildings to actual needs, but it should be remembered that when space is used wholly or partially for advanced or research work, the "O" ratio will always be low.

For theoretical purposes it has been assumed throughout this analysis that there is no congestion until the plant is run full time, or 44 hours per week; "microscopic light" and like considerations which would argue against such full-time production are largely matters of individual conviction. Many of the laboratories at Columbia University are working on a full-day schedule and by artificial light until 10.30 at night, and there is no vital difference in the latitudes of the three Iowa educational centers and that of New York, if daylight is to be taken as the determinant of the use or idleness of a room.

As to the facts of the general comparison between the simple OT ratios, the State college at Ames leads in effectiveness of utilization. This is very probably the result of the work of its "efficiency committee." The officials at Ames are to be commended for the independent effort they have already made to know their plant.

The commission strongly urges that at each institution the data on rooms be filed in one place, under the charge of a single officer. The lack of system in this matter in certain institutions may be illustrated by the case of a member of the faculty of one of them who wanted a classroom at 8 o'clock Wednesday mornings, and having none under the immediate control of his department, was without the means of finding such a vacant room. No individual, office, or committee had on file a complete roster or tabular view of the plant. The latent possibilities were unknown.

There is, unfortunately, no other State or National survey of college buildings, so far as is known, on the same or any other comparable basis, that would furnish a norm with which to compare the present operations in Iowa. What the commission has done is to furnish material for the establishment of an "Iowa norm" and detail a method by which the building committee of the board of education may test the validity of claims made upon it by the several institutions.

#### LIBRARIES AT THE STATE UNIVERSITY AND STATE COLLEGE.

The commission is unanimous in its opinion that library facilities are badly needed at the State university and the State college (Ames), and that the necessary construction should precede any other pending plans for new buildings, especially at the State university.



## THE STATE UNIVERSITY.

The statements made by Dean Wilcox and Acting Librarian Roberts, of the State university, in the 1914 Report of the State Board of Education, pages 71 and 84, respectively, were fully substantiated by the commission's personal observation of the library conditions and the data available on the subject. In the first place, the accessions are too highly decentralized to make the administration effective or the function of the department vital. The physical arrangement of the library proper, in the Natural Science Building, is to the disadvantage of officers, students, and faculty.

## THE STATE COLLEGE.

The library problem is as pressing at the State college, and demands immediate consideration. With 2,000 square feet of corridor space in Central Hall partitioned off to accommodate overflow books, and cramped administrative space, there is real need for a library building large enough to house the present collections and make due allowance for the ever-growing literature on agriculture and allied subjects.

It is suggested that when permanent quarters are constructed at either institution the building be of the expansive unit type, rather than a *complete* building. It will then be possible to extend the stack space as the collections are increased, and to add later an auditorium section (in both institutions) if cost prohibits the inclusion of the auditorium in the original construction. The commission does not commit itself to the combination of library and auditorium as a permanent feature of construction.

## THE PROPOSED BOTANY AND GEOLOGY BUILDING AT THE STATE UNIVERSITY.

The board has asked specifically for advice on the matter of placing the proposed new botany and geology building<sup>1</sup> next in order of construction. The commission has studied the question with all possible care and submits the following statement of facts and opinions, together with recommendations.

The Old Science Building, now occupied conjointly by the departments of botany and geology, is a nonfireproof structure. Since its construction in 1884 it has been little improved to meet modern teaching demands. If the commission's information is correct, the expectation of moving into other and more adequate quarters has inhibited requests for needed improvements in the past four or five years. Requests may have been made, but no record of them was

<sup>1</sup> The commission is aware that the plans for this building have been approved by the legislature, but it understands that until the construction is definitely ordered the State board is able to allow other building plans to take precedence of this.

obtainable. In this connection special attention is called to this pertinent excerpt from the appended tables:

TABLE 8.—*Space and occupancy of buildings at the State university.*

Factors of comparison.	Old Science Building.	Natural Science Building.	Whole plant.
1. Total area.....square feet.....	21,227	68,881	.....
a. Instructional space.....do.....	9,539	9,540	.....
(1) Per cent of total.....	44.9	13.8	39.75
b. Accessory space.....square feet.....	10,750	48,369	.....
(1) Per cent of total.....	50.6	70.2	54.73
c. Combination space.....square feet.....	938	10,972	.....
2. Scheduled space:			
a. Average ratios of use—			
Occupancy (O).....per cent.....	47.08	42.658	53.732
Time (T).....do.....	34.304	54.166	36.852
OT.....do.....	16.155	23.143	19.815
b. Average area per working unit—			
Classrooms.....square feet.....	23.150	14.650	22.076
Laboratories.....do.....	25.775	43.250	<sup>1</sup> 55.300
Mixed space.....do.....	36.800	34.500	<sup>2</sup> 46.080

<sup>1</sup> Cf. high unit for home economics and physics (appendix).

<sup>2</sup> Cf. high unit for home economics; both raise plant average above normal.

It will be noted that there is no apparent congestion in teaching space now used by the botany and geology departments, and that these departments do not seem to be making as good use of their physical facilities as the department of zoology by about 7 per cent average.

The primary consideration of this specific problem becomes, then, not one of teaching, but of museum space. It is granted that such valuable collections as are now in the possession of the departments of botany and geology should be safeguarded against destructive forces. But certain general conclusions with regard to museum space have the indorsement of all the authorities consulted by the commission:

1. The scheme of a complete museum is impossible without practically unlimited funds<sup>1</sup> and time.

2. A State university museum, where there are not large numbers of specialists in zoology, needs a basic type collection for the purposes of the general students; it is important in an agricultural college that a fairly full series of insects should be in a museum as well as representatives of groups of economic importance. A consideration of the arrangement of the zoology museums will show that the collections are too much spread out, with waste of space, according to the best modern practice; that is to say, as regards zoology,

<sup>1</sup> On the basis of the areas reported by Supt. Fisk, it is found that 42.1 per cent of the building, excluding corridors, is occupied by museums. According to the calculations of the commission, which include corridors and are based on later reports from the superintendent, 27.4 per cent of the building is used for museums. Neither percentage includes the attic storeroom for specimens. Cost to construct building, \$275,372.05; investment by State in the zoology museums (27.4 per cent), \$75,451.94 (space only).

it is not necessary for teaching purposes at the State university to display all the variations of a species. There is evidently no limit to the ambitious concept of a complete museum, nor is there limit to the resulting expense.

The exhibition of an abundance of specimens has unquestioned cultural value, provided geographical location and flow of population will give the exhibition "circulation" enough to warrant its cost. But such by-purpose is outside of the primary function of teaching and investigation. Highly specializing research students should go to centers of collection, such as Chicago, New York, or Naples, rather than expect all research material to be concentrated within their own State borders. The modern tendency is *not* to have such large collections for teaching purposes.<sup>1</sup>

If the present departmental policy is to be continued, involving the present or prospective use of as much storage space as the museum itself occupies, and the conversion of the present auditorium into a "museum of the State of Iowa" when the new library-auditorium building is built, it is the commission's opinion that the zoology museum should be given either enormously larger grants from the State treasury or an immediate endowment. In this matter the commission has reenforced its own judgment with that of experts on general museum problems. Quite without reference to any specific conditions in Iowa, the opinions summarized above were received.

The Natural Science Building, as originally contemplated, was to house zoology, botany, and geology. This plan was later modified to include temporarily a library and auditorium. Over 15,654 square feet<sup>2</sup> would be released to botany and geology by the removal to a new building of the library (all rooms in the building now used for library purposes, 10,007 square feet) and the auditorium (not including stage, balcony, or the possible area to be gained by flooring the present balcony well, 5,647 square feet). With reasonable compression of the present zoology museums, as discussed above, there would be available what would seem to be ample space for at least botany or geology. It is scarcely correct to pronounce this space inadequate by comparison with the space now occupied by the department of zoology, for the departments of botany and geology would hardly ask a new building of their own to cost the State \$200,000 unless there was a serious lack of space where they were originally provided for.

Botany, geology, and zoology could all overlap in the use of class (recitation and lecture) rooms, possibly in some of the laboratories, but *not* in museums. More museum space, comparatively, will

<sup>1</sup> Ornithologists teach primarily from skins and not from stuffed specimens such as are abundantly found at Iowa City.

<sup>2</sup> Commission's figures; balcony and stage of auditorium not included.

be needed by zoology than by the other two departments, because of the greater bulk of the specimens, especially the vertebrates. Twenty mineral specimens will go into about the same space as 20 botanical specimens; 20 zoological specimens demand more.

The proper ratio of storage to display space should be more nearly *one* for storage to *three* for display, than one or two to one. Given 100 per cent museum and laboratory space that can not overlap in a building, it might be said, roughly, that the allotment should be 30 per cent to botany, 30 per cent to geology, and 40 per cent to zoology.

While the facts cited indicate that the present demands may be met by such arrangements as have been suggested, and while it is felt that library and auditorium are at present the most pressing needs, and that the readjustments here outlined would make possible the better accommodation of existing departments, nevertheless it should be pointed out that the university will undoubtedly soon need more than one new building, and that adequate provision for the departments of geology and botany should be included in future building plans.

If the Old Science Building will not yield to modernization by paint, illumination, and rearrangement, in order to accommodate satisfactorily the remaining department (if both botany and geology can not enter the Natural Science Building), the board is then faced only with the easier problem of erecting a simple fireproof structure for that single department.

Alterations will be necessary in the Natural Science Building before the new tenants can be properly housed, and the Old Science Building should be cleaned up, on general principles if for no other reason.

### CONCLUSIONS.

In conclusion the commission submits the following considerations to the attention of the board as bearing on the building policy for the future:

1. At a State school no new building should be erected primarily to provide teaching space while suitable teaching space is available in any building on the campus, regardless of the name in which the cornerstone of that building was laid. It is evident that there can be no proprietary control by a department or an individual over space provided by the taxpayers for educational purposes. The principle of the most advantageous use of space for the good of the whole institution should prevail.

2. When a new building is erected, the tendency of any department to spread out over all available space (including some provided for future growth) is one which can be easily checked by the governing authorities. Later contraction or compression is always difficult.

3. Dormitories are not a part of the instructional plant proper, and wherever erected should be self-supporting or even profitable investments for the State. The commission is informed that other colleges are earning as much as 6 per cent net on such investments.

4. Further investigation may reveal a local tradition that work should be concentrated largely in forenoons or afternoons, the time ratio reflecting the extent of the idle time. Any such tradition should be made to justify itself under searching criticism, or be forthwith abandoned. This problem is worthy of especially careful consideration.

The conclusions of the commission are based on as complete a factual study of the problem as circumstances permitted.

In the course of this investigation the commission has become more and more convinced that "needs" can be determined by the several institutions only on the basis of definite surveys of existing facts. Therefore, as a final recommendation, it is urged that the roster committees of the institutions be stimulated by the board's requirement that all askings for buildings henceforth be accompanied by some definite survey of the situation which it is proposed to remedy by new construction, and that the increased or decreased effectiveness of use be brought to the attention of the State board periodically by means of reports similar to those outlined in this statement. A complete study of the possibilities of the present facilities is fully warranted by the large values at stake.

#### SUMMARY OF RECOMMENDATIONS.

1. At the State university:
  - a. The construction of a library and an auditorium as the greatest present need.
  - b. The accommodation of one or both of the departments of botany and geology in the space thus released in the Natural Science Building.
  - c. The remodeling of the Old Science Building and the construction of a simple fireproof building to house the remaining department and its important collection (in case only one is accommodated in the Natural Science Building). The definite inclusion in future building plans of provisions ultimately adequate for the departments of geology and botany.
2. At the State college:
  - a. The early construction of a library and an auditorium.
3. A definite survey of the effective use of present building facilities along lines suggested in this report.

[The following graphical representations of the relations of instructional and accessory space to the total space apply only to the selected buildings as stated. Such relations have no significance except to indicate the nature of the investment in each plant from the standpoint of effective utilization. Combination space is not included in these graphs.]

### "OT" RATIOS.

#### 1. AVERAGE USE OF CLASSROOMS.

100 per cent—Standard of measurement.

35 per cent.

Very high percentage of use—Arbitrary estimate.<sup>1</sup>

18.39 per cent.

State University of Iowa.

23.34 per cent.

Iowa State Teachers College.

19.508 per cent.

Iowa State College of Agriculture and Mechanic Arts.

#### 2. AVERAGE USE OF LABORATORIES.

19.315 per cent.

State University of Iowa.

22.83 per cent.

Iowa State Teachers College.

32.928 per cent.

Iowa State College of Agriculture and Mechanic Arts.

#### 3. AVERAGE USE OF MIXED SPACE.

21.76 per cent.

State University of Iowa.

24.94 per cent.

Iowa State Teachers College.

23.067 per cent.

Iowa College of Agriculture and Mechanic Arts.

#### 4. AVERAGE USE OF PLANT.

19.815 per cent.

State University of Iowa.

23.93 per cent.

Iowa State Teachers College.

26.424 per cent.

Iowa State College of Agriculture and Mechanic Arts.

### RELATION OF INSTRUCTIONAL SPACE TO TOTAL SPACE.

39.757 per cent.

State University of Iowa.

44.876 per cent.

Iowa State Teachers College.

44.157 per cent.

Iowa State College of Agriculture and Mechanic Arts.

<sup>1</sup> See notes, page 105. No data available for accurate statement.

## RELATION OF ACCESSORY SPACE TO TOTAL SPACE.

54.732 per cent.

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State University of Iowa.

53.239 per cent.

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Iowa State Teachers College.

49.8 per cent.

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Iowa State College of Agriculture and Mechanic Arts.

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Chapter XIII.

## BUILDING COSTS.

In addition to the foregoing analysis of the use of buildings at the three State institutions, the commission has also undertaken a study of the square feet of floor space provided for each student and the cost thereof. It is hoped that the results of the study, taken in connection with those recorded in the preceding chapter, may help the authorities to estimate the extent of building operations which will be required to house adequately the educational work of the institutions as the enrollments increase. It should be emphasized, however, that this study represents a different aspect of the building problem from that just discussed. Quite different factors are used to obtain the results.

In listing buildings occupied for educational purposes, an attempt has been made to separate them roughly into two groups: "Buildings used in common," as library, gymnasium, heating plant, auditorium; and "buildings used as classrooms and laboratories." This division can be only approximate, as many buildings contain rooms of both classes. The total floor area of each building has been taken, including corridors, closets, stairs, etc. Dormitories and residences have been omitted. Where dormitories are provided by a State, it is only reasonable that the income from them should fully cover all maintenance, cost, repairs, and renewal of equipment and pay from 3 to 6 per cent income on the investment. The erection of dormitories must be based on a desire to provide adequate living accommodations for students and is entirely separate and distinct from the provision of educational buildings.

In determining the square feet of floor space provided per student, the estimated *average attendance* during the present college year, 1915-16, was taken. This average attendance has been calculated according to the method described in Chapter II. It will be apparent that in considering building accommodations we are only concerned with providing adequately for the average number actually on the campus at one time during the college year. Using these factors, the

following summary tables have been compiled. It is to be noted that all buildings except dormitories and residences are included in this study, whereas the study of the utilization of space concerned only 10 buildings at the State university, 10 at the State College of Agriculture and Mechanic Arts, and 8 at the State Teachers College.

TABLE 9.—*Cost of buildings of Iowa State educational institutions—Enrollment.*

Items of comparison.	Cost of buildings.	Square feet of floor surface.	Cost per square foot of floor.	Cost per student.	Square feet of floor per student.	Average enrollment of students.
<b>STATE UNIVERSITY OF IOWA.</b>						
Buildings used in common .....	\$380,125	124,028	\$3.07	\$146	47.7	.....
Buildings used for classes and laboratories .....	1,512,859	494,351	3.06	582	190.0	.....
Total .....	1,892,984	618,379	3.06	728	237.7	.....
Students in 1915-16 .....						2,600
<b>IOWA STATE COLLEGE.</b>						
Buildings used in common .....	435,962	131,323	3.32	167	50.5	.....
Buildings used for classes and laboratories .....	1,548,085	513,157	3.02	596	197.5	.....
Total .....	1,984,047	644,480	3.17	762	248.0	.....
Students in 1915-16 .....						2,600
Farm buildings .....	45,700	57,390	.80	17	20.7	.....
<b>IOWA STATE TEACHERS COLLEGE.</b>						
Buildings used in common .....	388,000	150,712	2.58	222	86.0	.....
Buildings used for classes and laboratories .....	498,000	272,714	1.82	284	156.0	.....
Total .....	886,000	423,426	2.10	506	242.0	.....
Students in 1915-16 .....						1,750

*Cost per square foot of floor space in some of last buildings erected.*

**Teachers college:**

Vocational building .....	\$2.72
Library .....	3.25

**State college:**

Chemistry building .....	2.80
Veterinary building .....	3.04

**University:**

Women's gymnasium .....	2.46
Physics building .....	3.48

Average cost per square foot floor .....

2.96

It will be seen that an average of 243 square feet of floor space is at present provided. The average cost of six of the large buildings recently erected is \$2.96 per square foot of floor space. This amounts to \$720 per student. Since a considerable quantity of furniture and equipment must be provided for each new building, this figure is probably 10 per cent too low; \$750 or \$800 per student can probably be taken as a safer estimate. Hence, if the present per capita allowance of space is to be maintained, it seems reasonable to anticipate



an expenditure for additional buildings of \$75,000 to \$80,000 for each 100 increase in the actual average attendance. With approximately \$2,000,000 worth of buildings in use at the university and at the State college, respectively, an increase in the utilization of the buildings of 10 per cent over the present practice would be the equivalent of \$200,000 worth of additional buildings at each place. Further, the State board must anticipate that from time to time some buildings will be advantageously replaced by more modern structures. Some of the principal considerations, then, which the commission believes that the State board should take into account in determining its building policy for the future are given in the following summary of recommendations.

#### SUMMARY OF RECOMMENDATIONS.

1. An annual allowance of 2 per cent of the cost of buildings for repairs and renewals of furniture.
2. The replacement of worn-out or antiquated buildings by modern structures of the same capacity.
3. The realization of the necessity of appropriating \$75,000 or \$80,000 worth of buildings to provide for every addition of 100 to the average attendance after the limit of the utilization of the present space has been reached.

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### Chapter XIV.

#### THE PHYSICAL EDUCATION OF WOMEN.

Although not specifically requested to do so, the commission has undertaken to examine the conditions under which physical training is administered to women at the State higher institutions. The matter was forced upon the attention of the members of the commission during the course of their visits and was regarded as of such intrinsic importance as to merit all the consideration which the commission was able to give it. As the result of the investigation the following brief statement is submitted, accompanied by a recommendation.

Physical education is now required of all women students, usually for two years of their course, in the State higher institutions of Iowa. In view of this requirement it is highly important that the facilities provided should be adequate, that the relation of the department of physical training to the administrative departments should be intimate, and that the authority delegated to the physical director should be well defined. Only in this way can the State be

absolved of its supreme obligations for the preservation and the upbuilding of the health of its women students.

The new gymnasium at the State university is an excellent, well-equipped, fireproof structure. Since all young women in the university are required to enroll in gymnasium classes, the commission commends the administrative organization which subordinates the gymnasium to the office of the dean of women. This is a particularly happy arrangement in view of the fact that the dean of women registers the women students and acts as course adviser for all freshmen and sophomore women.

While the gymnasium accommodations for women at the State college of agriculture and mechanic arts are limited and will soon be outgrown, the conditions are admirable in every respect and the administration excellent. It is somewhat unusual to find a department of physical education organized as a part of the division of home economics, but, since practically all women at that institution are enrolled in home economics courses, this arrangement makes possible an effective cooperation between the authorities charged with the mental and those responsible for the physical training of women students. It appears to work satisfactorily.

The gymnasium facilities for women at the Iowa State Teachers College are inadequate and the conditions surrounding the work in physical education unsatisfactory, especially with respect to the supply of shower baths and towels and the use of the swimming pool.

The commission recommends that a regular woman physician be employed at each of the three State institutions, whose duty it shall be to advise all women students as to the extent and type of physical training required of each and to exercise general supervision over the health of women students. It is, in the commission's judgment, an indefensible practice to intrust, either directly or by tacit consent, the administration of curative treatment of serious physical ailments to any but regularly trained physicians.

#### RECOMMENDATION.

The appointment of a regular woman physician at each of the three State institutions to supervise the physical training and the health of women students.

## Chapter XV.

## THE WORK AND REMUNERATION OF THE INSTRUCTIONAL STAFFS OF THE IOWA STATE INSTITUTIONS.

Highly significant of the standards and administrative efficiency of an educational institution are the amount and character of the work demanded of its instructors and the salaries they receive for their services. The commission has judged that a study of these matters should form a part of its investigations. The board of education, also, in its original invitation (mentioned in the first paragraph of the introduction) to the Commissioner of Education to undertake the survey, specifically raised the questions: Are the classes of proper size, considering economy and efficiency? And, considering the subjects taught, are the members of the instructional staff teaching the proper number of hours a week? In this chapter an attempt is made to answer these questions, to discuss various other matters closely related to them, and to formulate certain principles which it is hoped may be useful to the institutions in the future.

In any college or university the administration determines, through the courses of study adopted, the policy of the institution in regard to the average number of hours per week a student is to be under instruction in lecture, quiz, and laboratory. With this policy fixed, the administration faces the problem of providing an adequate amount of this instruction of the highest quality possible for all students entered.

Some conclusions as to what is an adequate amount of instruction from the point of view of the individual student are generally accepted:

(a) In lecture a professor may meet effectively as many as can comfortably hear and see him.

(b) In recitation or quiz, 30 in a section is probably the largest number than can be effectively handled, but the desirable maximum for classes of this type would be from 20 to 25.

(c) In laboratory work it is commonly agreed that one instructor should be provided for every 15 or 16 students.

Larger numbers in quiz or laboratory sections seriously curtail the attention accorded by the instructor to each individual student.

The number of lecture, laboratory, and quiz sections which one instructor can meet in a week will depend on the character of the work, whether it is elementary or advanced, whether it involves reading a large amount of written work, and whether it consists entirely of separate courses or includes two or three sections of the same course. It will also depend on the amount of outside reading, writing, and research which he is expected to do. In every case a certain

variable amount of administrative and committee work will be carried by the members of the faculty.

In the following paragraph some standards are suggested which may be used to test the loads of the members of the teaching staffs of various types of institutions and which may help administrative officers to remedy an uneven and inequitable distribution of the teaching burden. In this discussion the "student-clock-hour" of instruction is taken as the unit. The term may be defined thus: One student under instruction in lecture, quiz, or laboratory for at least 50 minutes net represents one student-clock-hour. For example, 20 students meeting four hours a week in recitation represent 80 student-clock-hours.<sup>1</sup>

A study of any department at once makes it evident that no definite number of student-clock-hours can be fixed for each instructor, but an average for a department may be set up. In a university, or in an institution where research work is encouraged and expected, it seems reasonable to expect a department to carry, on the average, 250 student-clock-hours per instructor. In a distinctly undergraduate college, where research is limited and where little or no graduate work is conducted, a departmental average of 300 student-clock-hours per instructor may perhaps be taken as the reasonable norm. It must be noted also that, in an institution whose program is made up largely of laboratory work, the average number of student-clock-hours per instructor will be higher than in an institution whose program consists chiefly of nonlaboratory courses.

Concerning the quality of instruction, something may be inferred from the salaries paid. Colleges and universities of the first rank must employ well trained and experienced teachers, and must pay them salaries large enough to enable them to support a family modestly and to keep in touch with the progress in their several fields of learning through attendance on the national meetings of the scholars in those fields. The practice of the stronger institutions in this country indicates that the average salary for a department should be at least \$2,000 a year. In the judgment of the commission, this amount should be regarded for the time being as the reasonable minimum average in collegiate departments, especially in view of the recent remarkable advance in the quality of high-school instruction and in the remuneration which it commands. In departments that expect to retain men of distinction a higher salary must be paid.

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<sup>1</sup> It should be emphasized that this is a different unit from the "credit hour" or "semester hour." Usually two or three hours of laboratory work are required as the equivalent of one hour recitation, where semester credit hours are considered. The "student-clock-hour" here used as the unit does not discount laboratory hours, but counts laboratory, lecture, and quiz exercises equally, hour for hour. A student in chemistry one hour in lecture, one hour in quiz, and four hours in laboratory in a week would be counted as receiving six student-clock-hours of instruction.

If the curriculum of an institution demands that each student shall be under instruction on the average for 20 hours a week in lecture, laboratory, and recitation, then for every 1,000 students 20,000 student-clock-hours of instruction must be provided by the administration. If instructors carry an average of 300 student-clock-hours each, 67 instructors will be required. It is also clear that, with a fixed sum for institutional maintenance, the best salaries can not be paid unless the average load of student-clock-hours closely approaches the desirable maximum. For instance, if an institution providing 20,000 student-clock-hours of instruction has \$134,000 to spend on teachers' salaries and employs 80 instructors instead of 67, the average load of student-clock-hours will be reduced, but so will the average salary.

*Credit value of courses.*—In general an instructor dealing with elementary or intermediate classes can do more effective work by teaching a few courses three, four, or five hours a week each than by teaching a greater number of courses of less credit value. While one and two-hour courses may be justified by special conditions, such courses should, as a rule, be discouraged as uneconomical of teachers' and students' time. The commission is of the opinion that an elementary course three, four, or five hours for one semester can be more profitably taught and studied than one of one or two hours for two semesters.

*Size of classes.*—Classes of five students or less can rarely be justified except in advanced work or in the graduate school. Courses enrolling 10 or less are expensive and should not be given unless the need is fully demonstrated. Many small classes indicate in some cases the lack of adequate study of curriculum or schedule by the administrative officers, and in others an undue effort by departments to serve the whims or the convenience of students in order to build up departmental enrollment. Large classes, on the other hand, unless they are lecture classes, usually entail inferior educational results. Classes of over 30 are at least open to question. Any considerable number of them generally shows a need for more instructors, or a poor distribution of students or instructors.

Below are summary tables showing for each of the three State institutions the average salary paid in each department; the average number of student-clock-hours carried by the instructors in each department; the average salary paid by the institution; the average number of student-clock-hours carried by each instructor; the average number of student-clock-hours carried by each student; the number of courses given respectively one, two, three, four, and five hours a week; the number of sections having from 1 to 5 students, 6 to 10 students, etc., and the ratio of each of these groups of courses to the total number of courses given at the institution.<sup>1</sup>

<sup>1</sup> For detail tables from which these summaries have been compiled, see Appendix, p. 158.

TABLE 10.—*Number, salaries, and work of full-time instructors in liberal arts and applied science in University of Iowa, 1914-15.*

Departments.	Full-time instructors. <sup>1</sup>	Average salary.	Average student-clock-hours taught by instructors in department.		Increase in departmental salary budget, 1915-16.
			First semester.	Second semester.	
Botany.....	6	\$1,517	119	160	\$900
Chemistry.....	11½	1,430	178	130	300
Education.....	5½	2,300	200	200	15,780
English.....	12½	1,995	243	237	6,100
Public speaking.....	2	1,325	241	230	450
Geology.....	4	1,900	486	501	1,000
German.....	7	1,683	391	329	1,450
Greek.....	1½	.....	71	125	.....
History.....	5	1,960	251	250	4,425
Latin.....	3	2,200	157	144	.....
Mathematics.....	7½	1,580	234	160	550
Philosophy and psychology.....	5	2,300	275	269	2,600
Physics.....	6	1,634	303	280	1,075
Economics and sociology.....	5½	2,200	331	388	7,500
Political science.....	3½	1,690	296	356	1,850
Romance languages.....	4	1,625	442	361	3,000
Zoology.....	8½	1,685	279	253	650
Home economics.....	3	2,133	376	328	4,000
Applied science.....	20½	1,800	220	171	.....
Total.....	119½	213,675	31,005	28,634	.....
Average.....	.....	1,790	264	240	.....

<sup>1</sup> By a "full-time instructor" is meant an instructor giving his entire time to teaching. In the case of men giving part time to the State Experiment Station a proportional fraction of their time and salary was credited to teaching. Instructors teaching half time on a small salary and devoting the balance of their time to study are counted as one-half instructors.

The enrollment of students was approximately 1,665;<sup>1</sup> average student-clock-hours to the student, 19.

It will be noted that certain departments are manifestly overloaded and should be relieved. Other departments could carry a larger load without being overburdened.

*Credit value of courses.*—There were 30 sections having one hour per week, 185 sections with two hours, 82 sections with 3 hours, 30 sections with 4 hours, 15 sections with 5 hours, and 16 sections as arranged.

The commission thinks that better results could be obtained in introductory, elementary, and intermediate courses, with some saving of strength, by the reduction of the number of one-hour and two-hour classes. This might be done in many cases by offering three or four or five hour courses for one semester in place of one or two hour courses for two semesters.

#### Size of sections.

Students.		Students.	
95 sections.....	1 to 5	43 sections.....	31 to 40
80 sections.....	6 to 10	15 sections.....	41 to 50
Per cent, 39.		9 sections.....	51 to 60
120 sections.....	11 to 20	4 sections.....	61 to 70
77 sections.....	21 to 30	1 section.....	71 to 80
Per cent, 44.		2 sections.....	81 to 90
		2 sections.....	110 to 130
		Per cent, 17.	

<sup>1</sup> The entire enrollment was not studied; for example, the dental school, the medical school, and others were omitted.

TABLE 11.—*Number, salaries, and work of full-time instructors in the State college of agriculture and mechanical arts.*

[The data below refer only to collegiate students and the courses offered for their instruction in the various departments.]

Departments.	Full-time instructors.	Average salary.	Average student-clock-hours taught by instructors in department.	
			First semester.	Second semester.
Agricultural editing.....	3½	\$1,980	99	188
Agricultural journalism.....	1½	1,730	189	252
Agricultural engineering.....	6½	1,590	495	455
Animal husbandry.....	7½	2,170	528	517
Bacteriology.....	2½	1,850	164	342
Botany.....	6½	1,490	423	349
Chemistry.....	24½	1,080	430	372
Civil engineering.....	8½	1,820	876	373
Dairy.....	4½	1,840	197	349
Economical science.....	3	2,030	310	168
Electrical engineering.....	4	1,875	144	150
English and literature.....	15	1,275	201	160
Home economics.....	15½	1,320	346	321
Farm crops.....	7½	1,630	387	320
Horticulture.....	5½	1,500	286	206
Mechanical engineering.....	15	1,475	476	430
Physics.....	9½	1,490	266	220
Zoology.....	7½	1,550	280	456
Mathematics.....	12	1,370	262	235
Public speaking.....	3	1,133	132	108
Forestry.....	2½	1,740	160	164
Geology and mineralogy.....	2½	2,380	87	91
History.....	3	1,725	95	308
Soils.....	3½	2,090	495	304
Modern languages.....	6	1,325	234	313
Music.....	2½	1,125	232	370
Psychology.....	2½	2,250	278	211
Structural design.....	1	2,500	115	443
Veterinary medicine.....	9	2,065	302	236
Total.....	190	297,944	61,069	58,354
Average.....		1,565	322	306
Enrollment of collegiate students.....			2,522	2,497
Average student hours per student.....			24.2	23.3

*Credit value of courses.*

	Credit hours per week.		Credit hours per week.
65 classes had.....	1	1 class had.....	3½
6 classes had.....	1½	28 classes had.....	4
17 classes had.....	1¾	7 classes had.....	4½
126 classes had.....	2	1 class had.....	4¾
11 classes had.....	2¼	29 classes had.....	5
11 classes had.....	2½	1 class had.....	5½
84 classes had.....	3	5 classes had.....	6
11 classes had.....	3½		

It seems to the commission that some reduction in the variety of hours' credit offered would be advisable and also a reduction of the number of one and two hour courses. It should be noted, however, that at this institution an unusually large per cent of the students' time is spent in the laboratory, where three hours' work is required for one hour of credit. This explains the fractional credits.

*Size of sections.*

	Students.		Students.
162 sections.....	1 to 5	21 sections.....	51 to 60
149 sections.....	6 to 10	9 sections.....	61 to 70
Per cent, 27.5.		5 sections.....	71 to 80
405 sections.....	11 to 20	5 sections.....	81 to 90
335 sections.....	21 to 30	1 section.....	91 to 100
Per cent, 56.6.		10 sections.....	Over 100
92 sections.....	31 to 40	Per cent, 15.9.	
39 sections.....	41 to 50		

It is to be noted that at the State college 136 to 144 semester hours' credit are required for graduation, as against 120 semester hours at the university, exclusive of physical training and military drill, and 120 at the State Teachers College, exclusive of physical training and work in literary societies. It will also be observed that each student at the State college carries about 24 student-clock-hours of instruction as against 19 or 20 at the other institutions.

TABLE 12.—*Number, salaries, and work of full-time instructors in Iowa State Teachers College, 1914-15.*

[The following data refer to the collegiate enrollment only, including all students in the two-year and four-year courses, entrance to which is based on a four-year high-school course.]

Departments.	Full-time instructors.	Average salary.	Average student-clock-hours taught by instructors in department.				Increase in departmental salary budget, 1915-16.
			Summer.	Fall.	Winter.	Spring.	
Education.....	7	\$1,871	650	535	527	485	.....
Teaching.....	12	1,233	327	143	148	229	\$1,920
English.....	7	1,714	354	361	393	366	.....
Latin.....	2	1,850	110	165	183	156	.....
German and French.....	2	1,700	253	335	328	233	.....
Mathematics.....	1	2,300	595	245	219	220	.....
Physics and chemistry.....	4	1,575	348	316	222	240	.....
Botany, agriculture, geology..	4	1,850	650	446	331	745	200
History.....	2	1,450	400	440	393	403	.....
Government.....	1	2,200	766	287	180	265	.....
Economics.....	1	1,800	467	321	436	366	100
Art.....	3	1,333	492	178	353	301	.....
Music.....	3	1,700	770	368	312	236	.....
Manual arts.....	2	1,800	254	182	280	356	.....
Home economics.....	3	1,166	305	243	298	238	200
Total.....	54	86,100	17,333	16,809	16,382	17,928	.....
Average per instructor.....		1,594	321	308	303	332	.....
Enrollment of collegiate students.....				906	949	946	.....
Average student hours per student.....				18.3	17.3	18.9	.....

The commission submits that these figures indicate a very uneven distribution of the teaching burden and an inadequate number of teachers. If a better distribution of the teaching burden could be secured by the administration, it would partly relieve the situation, but at least five or six additional instructors should have been employed in 1914-15 to carry the load of that year.



*Credit value of courses.*—Almost all classes meet five hours a week. While this is admirable in elementary work, especially in the work of the first two years, it seems desirable to the commission to provide shorter courses, say, of three hours, for juniors and seniors. This is in accord with the practice of most strong and progressive institutions. Such an arrangement would probably raise the standard of the upper-class work and at the same time give greater variety of election to upper-class students.

*Size of sections.*—The figures give the average number of sections of sizes indicated for the year 1914-15, exclusive of the summer term. Subcollegiate classes are not included.

	Students.		Students.
15 sections.....	1 to 5	19 sections.....	31 to 40
33 sections.....	6 to 10	5 sections.....	41 to 50
Per cent, 30.		2 sections.....	51 to 60
50 sections.....	11 to 20	Per cent, 16.25.	
36 sections.....	21 to 30		
Per cent, 53.75.			

TABLE 13.—Summary of the data concerning size of sections in the three State institutions.

Sections at—	Number of students in section.									
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 60	61 to 70	71 to 80	80 and over.
University of Iowa.....	95	80	120	77	43	15	9	4	1	4
State college.....	162	149	405	235	92	39	21	9	5	16
Teachers college.....	15	31	53	38	19	5	3	.....	.....	.....

Certain interesting facts bearing on the administration of the three institutions appear in the foregoing summary. During 1914-15, 532 classes were given in which 10 students or less were enrolled (university, 175; State college, 311; teachers college, 46). The commission recommends that the officers of the institutions make a careful study of each of these classes to determine which of them were justified and which could have been omitted or postponed without material loss. Indeed, the commission is of the opinion that the administration of each institution should annually give the question of small classes earnest consideration, and that, in view of the expense involved, the organization of such classes should only be sanctioned upon presentation of evidence that they meet a real need of a deserving group of students.

In 1914-15, 285 classes of more than 30 students each were given instruction (76 at the university, 182 at State college, 27 at teachers college). The commission also recommends a study of these classes

to determine which of them were lecture classes, and therefore probably of justifiable size, and which were quiz or recitation sections, too large for the most effective teaching. As to the latter the administration should inform itself whether reductions might be effected by a redistribution of the work among the present members of the teaching staff, or whether additional instructors are needed to prevent the overcrowding of sections. Certainly in all departments where the average number of student-hours is less than 250 or 300, quiz and recitation sections of over 30 could be avoided by the proper distribution of work.

#### SUMMARY OF RECOMMENDATIONS.

1. The establishment of \$2,000 as the average minimum salary for collegiate departments.
2. The reduction of the number of one and two hour courses, especially in elementary work and in the first half of the college course, at the State university and the State college.
3. The reduction of the number of small classes (10 or under) at all three institutions.
4. More even distribution of teaching loads, to reduce the number of large classes (30 or more) at all three institutions.
5. The employment of several additional instructors (the number to be determined by the number of student-clock-hours to be carried) at the State teachers college.
6. The provision of a greater number of courses of less than five hours a week (three-hour courses are suggested) at the State teachers college.

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## Chapter XVI.

### OBSERVATIONS ON STATE AND INSTITUTIONAL ADMINISTRATION.

The commission has been much impressed with certain features of the general organization of educational control in Iowa. Some of these are discussed here, in the belief that not only the board, but the people of the State, may be interested in the observations and conclusions of a group of outsiders who have approached the study of the State's problems without local affiliations and without bias.

#### RELATIONS OF THE STATE SUPERINTENDENT OF PUBLIC INSTRUCTION AND THE STATE BOARD OF EDUCATION.

Allusion was made in Chapter I to the lack of coordination between the office of the State superintendent of public instruction and the State board of education, with reference to the inspection and ap-

proval of high schools. The legislation which has made the office of State superintendent wholly independent of the State board of education, together with the legislative action granting subsidies to certain high schools which comply with requirements administered through the office of the superintendent of public instruction, has made possible a disparity between the criteria of standardization as represented in the recommendations and requirements of the superintendent of public instruction on the one hand and the requirements of the institutions of higher learning on the other, especially as the latter are administered through the State board's high-school inspector and his assistants. The commission is of the opinion that, even if overt conflict of authority be avoided by the forbearance, good sense, and mutual consideration of the several parties concerned, it is unwise to have perpetuated a situation which contains the constant menace of friction, tending to stimulate controversial relations among the educational institutions of the State or among the official representatives of the different divisions of its educational system. Several remedies suggest themselves.

In a number of States—for example, California, Illinois, Michigan, Minnesota, and Wisconsin—the State superintendent of public instruction is *ex officio* a member of the governing board of the State university. The commission is aware of the objection to *ex officio* members of university boards, particularly when such members are political officials not otherwise connected with the educational system of the State.<sup>1</sup> This objection does not seem, however, to lie against the head of the State's common schools. On the contrary, the inclusion of the State superintendent in the membership of the board of education has the very tangible advantage of emphasizing the unity of the State's educational enterprise. At present the Iowa State board of education is organically cut off from the agencies in control of the public schools, except in so far as it chooses to seek their advice. This is a serious defect in the board's relationship to the interests which it is in part designed to serve. Moreover, it appears evident that the association of the office of superintendent of public instruction with the board in the direct management and control of the higher institutions would at once bring about an understanding by each agency of the plans and purposes of the other and would do away with any further possibility of conflict in the determination of high-school standards, a matter in which both are vitally concerned.

A still more radical alteration of the State's administrative machinery, but one which seems to the commission much more likely to result in the smooth operation of all its parts, would be the extension

<sup>1</sup> In several States the governor and other State officers are *ex officio* members of educational boards.

of the jurisdiction of the board of education to include the public elementary and high schools and the provision for the appointment of the superintendent of public instruction by the board. Several States in which educational administration has reached a high degree of efficiency—notably Massachusetts and New York—have substantially this form of control. While it may be argued that in these States the board is chiefly concerned with the lower schools, and that the State's higher educational enterprise is not nearly of such magnitude as in Iowa, this does not seem to constitute a valid objection. The construction of the Panama Canal was directed by a commission of seven members. In other words, from an administrative standpoint, the size of the undertaking is immaterial. It is the coordination of the powers and responsibilities of the administrative officials and their executive officers that is significant.

However, if neither of these changes in the constitution or functions of the board of education seems to the people of the State desirable, the commission calls attention to the devices which have been adopted in several States to secure harmony between the governing boards of State higher institutions and the department of public instruction in the matter of high-school inspection. One of the best conceived of these, and, as far as report has come to the commission, one of the most successful, is that in force in Ohio. Its principal features are as follows: The staff of high-school inspectors consists of eight persons, appointed by the superintendent of public instruction. Two of them are not connected with any college or university, two are from the faculty of the college of education of the State university, one each from the faculties of the normal colleges at Oxford and Athens, and one each from the faculties of the normal schools at Kent and Bowling Green. The various faculty representatives on the board of inspectors devote one half the year to inspection and the other half to teaching. The classification and rating of all schools is decided by a majority vote of all inspectors, meeting together under the chairmanship of the superintendent of public instruction. A copy of the report made on each school is furnished to the school itself, and one is sent to each of the institutions from which the half-time inspectors are chosen.

The systems in force in two other States may also be mentioned briefly. In Arkansas the high-school inspector is appointed by the State university and reports both to the university and the State department of education. The object of the inspection is threefold: To determine the granting of State aid, to organize and develop high schools, and to accredit schools equipped to prepare for college. In Florida the high-school inspection is under the joint control of the State university and the State department of education. The high-school inspector is the dean of the teachers' college of the

university and reports both to the university and to the department of education. The objects of the inspection are to stimulate the development of weak schools and to accredit schools equipped to prepare for college.

The commission has no right to offer recommendations on these matters, but it desires most earnestly to call them to the attention of the board, the legislature, and the people of the State.

A second subject, also outside of its legitimate field, on which the commission feels constrained to comment, is the constitution of the board of educational examiners. This board determines the qualifications of teachers for the State and issues certificates authorizing individuals to teach. It consists at present of the superintendent of public instruction, who acts as chairman, the president of the State university, the president of the State teachers college, and two persons appointed by the governor. It will be remarked that the president of the State college of agriculture and mechanic arts is not a member of this board. Since the State college is now the recognized training school for certain groups of teachers and is preparing annually such large bodies of young people for the teaching profession, it seems to the commission a matter both of courtesy and good judgment to include the president of that college in the membership of the board of educational examiners.

#### THE POWERS OF THE FINANCE COMMITTEE AND THE POSITION OF THE PRESIDENTS OF THE HIGHER INSTITUTIONS.

The commission is unanimously of the opinion that to go to the bottom of the difficulties confronting the State necessitates touching upon certain other and more intimate aspects of the organization of the State board of education.

The position of the finance committee seems to demand very thoughtful consideration. Unless the functions of this body are sharply defined and restricted, it appears to the commission highly probable that within a short time many of the responsibilities generally assigned to the executives of State institutions will largely pass into the hands of the committee. If it be desired that the presidents shall become purely *educational* administrative officers, with no responsibility whatever in fiscal affairs, this can perhaps be brought about. It would certainly constitute an interesting experiment in college and university administration—an experiment which most States would prefer to have made for them by some other State. Something of the sort has been more than once suggested. The commission does not, however, understand that this was the purpose of the act creating the committee. It is, nevertheless, clear that a committee of this kind, frequently on the grounds of each institution and

by reason of this fact more intimately informed regarding their internal conditions than perhaps any member of the board, partly in consequence thereof enjoying *de facto* (whatever the theory) large control over expenditures, is likely to acquire powers which it was never intended to convey. With the best of intentions such a committee will inevitably come under the influence of particular faculty individuals or parties, and the president's position may well become decidedly anomalous. It should be emphasized that the committee was everywhere spoken of with respect and appreciation, and the commission doubts whether abler and more efficient appointees could be chosen. But more than once indications appeared that the difficulties predicted had already in some instances begun to be realized. In some cases it seems that members of the faculties have been uncertain as to whether in seeking approval for proposed expenditures they ought properly to go to the president or to the finance committee. This uncertainty is of course capable of speedy correction. Its importance here is simply as an indication of the almost inevitable tendency of a body like the finance committee, consciously or otherwise, to acquire functions commonly restricted to the presidents.

To one unfamiliar with the actual internal workings of an American State university it may seem wholly practicable to divorce the educational supervision from all fiscal control, and as already indicated this has more than once been suggested. But to persons cognizant of the actual circumstances the practicability of this plan seems open to grave doubt. Not only must there be some one whose judgment in educational matters can be trusted when expenditures for wholly new enterprises are at issue; there must also be some authority who shall determine the thousand and one questions of *detail* in expenditure within the limits of a general budgetary program. For example, who shall determine whether, of \$2,000 available in general funds, the department of botany shall be allowed to purchase certain desired and perhaps essential additions to its equipment, or instead of this the department of history be permitted to make indispensable additions to its library? Only one can be done at a time. Questions of this kind under any budgetary system are constantly coming up in the larger institutions, and it seems somewhat obvious that an intelligent college president is more likely to reach a decision based on a just consideration of the educational issues involved than any layman, however well intentioned. Illustrations of the same type might be repeated indefinitely.

Now, again, it is not the understanding of the commission that in theory the finance committee forthwith decides this kind of thing, much less that it works in a manner designed to go behind the presidents, or undermine their authority with the faculties and students.

But, as was remarked above, there can be no question that increasingly as time goes on, the more intimate knowledge of the local situations possessed by the members of this committee, as compared with most of the members of the board, must operate to confer on the committee very large power and often a decisive influence. It will in the judgment of the commission inevitably occur that the board as a whole will get further and further away from the institutions, a result which would be highly regrettable. So long as the committee is equipped, as at present, with men of ability and single-minded devotion to the interests of the State, the practical consequences of the situation, so far as concerns the measures actually approved by the board, might be quite beyond criticism. With members of another kind the influence of the committee might be disastrous, and in any case, unless the powers of the committee are carefully defined so as to avoid all possibility of interference with the legitimate influence and authority of the several presidents, there is contained here the seed of serious consequences—among others the entire unwillingness of men of first-rate character and ability to serve the State in the presidential offices. High-grade character and ability always demand, and properly demand, actual power and real responsibility.

The commission finds it difficult to believe that the exclusion from the sittings of the board of education of the presidents of the State institutions of higher education (save on receipt of special invitation) can commend itself permanently as a wise policy. It is the unanimous opinion of the commission that the present procedure subjects the presidents of these institutions to conditions that are incompatible with the dignity of their office and likely to prove provocative of serious misconceptions in the State. From one point of view the presidents, like any of the other officers of these institutions, are simply employees of the State and more immediately of the board. In a larger and truer view of the case, however, they are expert officers of the State itself, responsible for perhaps the most important part of its internal administration, and, as such, every measure ought to be taken which will insure a dignified and complete presentation to the board of the issues affecting the several institutions in their charge. The commission questions most seriously both the propriety and the ultimate efficiency of a system which gives the institutions no official representation before the board, but it leaves it entirely to the initiative of the board to call them in when it sees fit. Such a procedure inevitably puts the administrative head of an institution in the position of a suppliant for favors instead of in the position of an authorized expert presenting to the responsible authorities the interests of the institution immediately in his charge.

Moreover, under present conditions it is difficult for the executives to view their problems as concerned solely with the best service of the State rather than with the upbuilding of particular institutions. If they were regular members of the State board, even though enjoying no vote, their outlook on the situation as a whole would necessarily be at once enlarged and altered and the board would unquestionably enjoy their loyal cooperation in meeting its problems. So far from complicating the transaction of the board's business, as might be feared by some, their joint presence would allay suspicion and create an atmosphere of frankness and fair dealing which could only be conducive to the welfare of the educational interests of the State. It is therefore recommended that the presidents of the State institutions of higher education be made *ex officio* members of the board of education without power to vote.

#### SUGGESTIONS REGARDING INTERNAL INSTITUTIONAL ADMINISTRATION.

The commission has been impressed with the possibility of improving certain features of the internal administration of the State institutions. Some of the present practices were no doubt satisfactory when the institutions were much smaller. Their inappropriateness to present conditions is perhaps more obvious to outsiders than to those within the institutions who have become more or less accustomed to the situation and have consequently come to accept it as natural.

At the State university the commission remarked in many ways the evident absence of a definite and consecutive policy in accordance with which the institution has been guided in recent years. This is no doubt in part due to the frequent changes in the presidency, with the consequent disorganization of plans. It is probably also due to the lack of active participation by the faculty as a whole in the formulation and execution of any program for the development of the institution. The university presents rather strongly to a visitor the impression of a group of relatively autonomous departments and colleges, many of them going their own way, with little obvious regard to the interests of other departments and even less for the institution as a whole. In default of a strong continuous centralized administrative control, such a condition tends to give the pushing, and even the selfish individual, an unfair advantage over his less aggressive and more generous-minded colleague. Needless to say, the institution is not always the gainer by the results of this situation. Furthermore, certain individuals may, under these circumstances, acquire essentially vested rights and privileges which it then becomes academic sacrilege to invade. The commission is disposed strongly to urge whatever measures will create or restore a



keener sense of faculty responsibility, with a corresponding decrease of departmental autonomy. The department should be the servant, not the master, of the university.

At the State teachers college a different form of administrative policy was encountered which also seemed open to betterment. There is no question here of the usurping by the departments of powers or privileges commonly vested in the executive or in the faculty. But as an incident of the highly centralized organization, there was observed a form of procedure, several times repeated, which perhaps attains a certain administrative efficiency at the cost of a genuine educational efficiency. For example, psychology is taught in the college ostensibly for its value in the science and art of teaching. The college courses in education are given for a similar reason. But the work of the practice school in which these subjects might be expected to find their application, illustration, and correction is conducted under an entirely separate administration and with only the most nominal and perfunctory coordination with the college department. The conditions of mutual understanding and cooperation between these two divisions of the institution, which the commission had been led to expect, proved on analysis of the facts to be of the most formal character. The disparity between the theory of the relationship and the actual fact appeared to be unequivocal. The commission is not unaware of the difficulties, both educational and administrative, involved in the conduct of a practice school and the proper correlation of its work with the academic work in education; nor is it oblivious to the obvious freedom from administrative friction which ensues from a policy of mutual exclusion such as is here represented. Unquestionably it makes for administrative quiet and peace. Also unquestionably it diminishes for the students by an amount not easily estimated, the actual significance of the work in teaching, in psychology, and in education. There is also perhaps an equally great loss in another direction, namely, in the vitalizing of the work of the members of the staff of the practice school which would follow from a more intimate contact with the work of the academic division.

A similar situation exists in the lack of coordination between the rural school division, giving work in education and psychology, and the college department. Here there is no necessary loss to the students, because they do not regularly come into contact with both divisions; but it is hard to believe that a system which keeps two such cognate divisions apart from one another can be realizing at all completely on its own intellectual resources.

Again, the organization of three essentially distinct divisions of work in home economics with separate laboratories, separate staff, separate purchasing arrangements, and the like, makes for

needless multiplication of supervisory duties, to say nothing of administrative wastage at other points.<sup>1</sup> In the new building presumably some of these objectionable features will be remedied. But the administrative principle under which such conditions can have arisen is the object of skepticism; and unless this is corrected, the same type of difficulty will certainly occur again. An administrative coordination represented by the nominal subserviency of cognate correlated divisions of work to a central office or person outside the departments concerned may conceivably achieve desirable freedom from some forms of tension, but as represented in the instances cited at the teachers college, it is highly improbable that it could ever meet fully the genuine needs of the students for whom the institution is conducted.

Attention should also be called to the danger that the extension work now in operation at the teachers college may affect unfavorably the work done on the grounds, because of the fatigue and distraction of the staff represented. The work itself appears to be admirably conceived and thoroughly worthy of development; but unless some additions are made to the faculty, or in some other way the school hours of the teachers engaged in this work are diminished, the result is certain—impaired health, impaired intellectual resiliency, and consequent loss of efficiency in the work of instruction at Cedar Falls. On the other hand, if relief of this kind is afforded, the work will bring back to the institution in the way of enrichment and vitalizing of teaching all that it gives.

#### INTER-INSTITUTIONAL SENTIMENT AND ATHLETICS.

The commission has already several times referred to the unfortunate bitterness which characterizes the attitude of the partisans of each of the State institutions toward those of the others. The tendency to regard with suspicion acts of a sister institution, to impute unworthy motives to its officers and adherents—this is the principal cause of the State's educational woes. It is not an expression of generous rivalry or of wholesome competition. It represents rather a devastating blight fastened upon the whole educational system of the State. That all three of the institutions should have made such genuine progress and should have attained such commanding rank among the collegiate institutions of the country in an atmosphere so hostile to true educational advance is testimony of an amazing innate vitality. The fact indicates that fundamental organic weaknesses are lacking and that Iowa's difficulty is largely a state of mind.

The commission can not believe that the citizens of a strong and enlightened Commonwealth will much longer tolerate a situation in

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<sup>1</sup> This question has already been discussed. See Chapter VIII.

which the most potent instruments for civic and intellectual betterment are thus blunted. It can not believe that the good sense of the State will longer permit petty institutional jealousies, founded for the most part on the merest illusions, to defeat even partially the State's educational purpose. It can not believe that the citizens of Iowa, even the most partisan minded, will much longer fail to see that the State's advantage is above the ambitions of any institution; that true institutional loyalty in any student or alumnus of a State institution means the consideration of the State's advantage first; that any student or alumnus who puts the claims of his institution above those of the State is an enemy alike to the State and to his institution.

While the commission is confident that this point of view must inevitably prevail—and it hopes speedily—nevertheless it recognizes the tenacity of existing animosities and the fact that exhortation will probably have slight effect upon them. It is led therefore to suggest one, as it believes, practical step toward the accomplishment of the desired end. This is the temporary discontinuance of intercollegiate football, and perhaps baseball, between the Iowa State University and the Iowa State College of Agriculture and Mechanic Arts.

The annual football game between the college and the university is the occasion of the revival of feuds, charges, and countercharges, the reassertion of differences and criticisms which at best have had only poor reasons for existence. The event, if the evidence is to be trusted, rarely partakes of the wholesome, generous, sportsmanlike rivalry which generally characterizes the relations between other universities in different States—for example, between Minnesota and Illinois. An enthusiastic, intelligent loyalty to an institution on the part of its alumni and friends is one of its strongest assets. Occasions which stir up such loyalty by bringing together large numbers of supporters of an institution like either of these, which is the creature and servant of the State, should be encouraged and supported, but occasions which engender misunderstandings and antipathies, with their consequent disintegrating and harmful effects, are to be avoided. That form of loyalty which finds its chief incentive and expression in hostility toward another creature and servant of the same State can not of itself and in the long run be a good thing for the State or its institutions.

For these reasons the commission recommends that intercollegiate football games at least, and perhaps baseball games also, between the two institutions under discussion should be completely suspended for a period of five or six years. This recommendation has nothing whatever to do with the larger matter of the participation of both institutions in other intercollegiate contests—for example, between

either of the institutions and the University of Nebraska or the University of Missouri or the Kansas State College. Games such as these ought to furnish the occasion for gatherings of enthusiastic and sportsmanlike alumni. They would, however, be devoid of the highly objectionable bitterness and institutional prejudices which seem to have contributed in recent years to obscure a sound and appreciative judgment of the merits of each institution by the adherents of the other.

The substitution of cooperation for competition is one of the largest and most outstanding needs in the adjustment of the relations of the two institutions. An earnest and progressive desire to cooperate by the alumni, faculty, and students of both the State college and the university should take the place of the traditional and oftentimes exaggerated rivalry which has hitherto characterized their relations in general. To magnify and perpetuate old antagonisms and fictitious differences under the guise of cultivating loyalty is to prevent the most efficient accomplishment of the State's purpose in creating these institutions.

#### CONCLUSION.

The commission has no desire to have its last word one of adverse criticism. In spite of the unwholesome effects of such interinstitutional sentiment as has been referred to in the preceding paragraphs, the commission would like to record its keen appreciation of the condition of the three State institutions. It considers that the State is to be congratulated upon the possession of higher schools on the whole so well conceived and well managed. It was especially impressed by the ability and devotion with which the members of the several instructional and official staffs are discharging their functions. An attitude of simplicity and straightforwardness prevails at all three institutions. The standards of all three are high and are conscientiously enforced. The high position of all three among similar institutions in the country is well known and unquestioned.

#### SUMMARY OF RECOMMENDATIONS.

1. The readjustment of the official relationships between the office of the State superintendent of public instruction and the State board of education.
2. The inclusion of the president of the State college of agriculture and mechanic arts in the membership of the board of educational examiners.
3. The strict definition of the powers and functions of the finance committee.

4. The inclusion of the presidents of the State higher institutions *ex officio* in the membership of the State board of education, without power to vote.

5. A larger measure of faculty responsibility and a decrease of departmental autonomy at the State university.

6. The closer correlation of cognate departments in the practice school and in the academic divisions of the State teachers college.

7. The temporary discontinuance of football (and perhaps baseball) games between the State university and the State college of agriculture and mechanic arts.

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## Chapter XVII.

### GENERAL SUMMARY OF RECOMMENDATIONS.

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#### DUPLICATION.

1. The adoption of the principle of "major and service lines of work" at the three State institutions.

2. The creation of an annual conference consisting of members of the faculties of the institutions and the State board of education, to adjust questions of overlapping not automatically determined, by the establishment of major lines for each institution.

3. The readjustment of the work in engineering at the State university and the State college, according to one of three methods:

(a) A horizontal division assigning graduate work to one school and undergraduate work to the other. (Judged at present impracticable by the commission.)

(b) The union of the two schools at one place. (Thought by the commission to be at present possibly inexpedient because of the state of public opinion.)

(c) A vertical division of work, assigning some branches of engineering to one institution and some to the other.

4. The discontinuance of the last two years in liberal arts at the Iowa State Teachers College with suggestion of three-year nondegree courses for rural and grade teachers.

5. The enlargement of facilities for practice teaching at the State teachers college.

6. The establishment of additional normal schools.

7. The addition of men to the faculty of the State teachers college, to give half of their time to instruction and half as members of the staff of the State superintendent of public instruction to the supervision of work in the normal-training high schools.

### GRADUATE WORK.

8. The encouragement of the development of graduate work at the Iowa State University and the Iowa State College of Agriculture and Mechanic Arts along the major lines of the institutions.

9. The adoption of a rule by the university according graduate status to none but students having a definite proportion of their registration in courses for graduates only.

10. The determination by the university senate, or some other representative body, of the departments to be encouraged to develop graduate courses.

11. The exercise of greater care by the graduate division of the State college in admitting students from other institutions to graduate standing.

12. The creation of a standing committee on graduate work, to consist of two members of the State board of education and three members each from the institutions giving graduate work, the latter to be elected for a term of years by the graduate faculties.

### LIBERAL ARTS AT THE STATE COLLEGE.

13. The strict enforcement by the State board of education of the principle that departments of liberal arts and sciences at the Iowa State College of Agriculture and Mechanic Arts shall be simply service departments; especially the revision of the work offered in the departments of economic science, geology, physics, and mathematics, to secure conformity to this principle.

14. The abandonment of courses in chemistry at the Iowa State College which neither contribute to the major lines of that institution nor reenforce the work of the experiment stations.

15. The revision of the requirements for the degree of bachelor of science in the division of industrial science, to render it impossible to secure the degree except on completion of industrial and professional courses (in contradistinction to liberal arts courses) equal in amount to those required in technical curricula.

### EXTENSION WORK.

16. The strict application of the principle of the major lines of work to the development of the extension enterprises of the three State institutions.

17. The establishment of a conference on extension work composed of members of the board of education and extension officers of the three institutions to discuss projects.

### DUPLICATION IN EDUCATION AND PSYCHOLOGY.

18. The imposition of no external limitation upon facilities offered at the three State institutions for giving work in home economics, agriculture, and manual training until the present force of teachers

in the State schools is equipped to meet the obligations imposed by the State law.

19. Thereafter the delimitation of work in psychology and education at the State college to the amount requisite to meet the requirements of the first-class State certificate.

20. The provision of better practice facilities at the State university.

#### HOME ECONOMICS.

21. The development at the Iowa State University of home economics as a service department along lines that will make it of greatest value to students majoring in other courses of study.

22. The avoidance by the university of courses that duplicate the work offered at the State College of Agriculture and Mechanic Arts in the preparation of high-school teachers.

23. The establishment at the university of special lines of work for the training of hospital dietitians

24. The provision in the near future of enlarged accommodations for the department of home economics at the State College of Agriculture and Mechanic Arts.

25. The provision of opportunities for preparation in institutional and cafeterial management at the State College of Agriculture and Mechanic Arts.

26. The provision of special courses for the preparation of trade and industrial school teachers at the State College of Agriculture and Mechanic Arts.

27. The improvement of the accommodations provided for work in home economics at the Iowa State Teachers College.

28. Reorganization of the department at the State teachers college under a single head.

#### SUBCOLLEGIATE WORK.

29. The continuance of subcollegiate work at the State teachers college.

30. The abandonment by the State College of Agriculture and Mechanic Arts of all noncollegiate work, except for limited short courses, in winter or in summer, for special groups of students. The establishment of corresponding work in selected high schools throughout the State under the direction of the State college.

#### JOURNALISM.

31. The approval of the work in journalism now offered at the Iowa State University and the Iowa State College of Agriculture and Mechanic Arts and the limitation of it to approximately its present scope.

### COMMERCE.

32. The moderate expansion and better correlation of courses now offered in various departments of the Iowa State University, rather than the creation of a separate school of commerce.

### UTILIZATION OF BUILDINGS.

33. At the State university:

- (a) The construction of a library and an auditorium as the greatest present need.
- (b) The accommodation of one or both of the departments of botany and geology in the space thus released in the Natural Science Building.
- (c) The remodeling of the Old Science Building or the construction of a simple fireproof building to house the remaining department and its valuable collections (in case only one is accommodated in the Natural Science Building). Adequate provision for the departments of geology and botany to be a part of any building plans relating to the immediate future.
- (d) Larger utilization of the physics building.

34. At the State college:

- (a) The early construction of a library and an auditorium.

35. A definite survey of the effective use of present building facilities along lines suggested in this report.

### COST OF BUILDINGS.

36. An annual allowance of 2 per cent of the cost of buildings for repairs and renewals of furniture.

37. The replacement of worn-out or antiquated buildings by modern structures of the same capacity.

38. The realization of the necessity of appropriating \$75,000 or \$80,000 worth of buildings to provide for every addition of 100 to the average attendance after the limit of the utilization of the present space has been reached.

### PHYSICAL EDUCATION OF WOMEN.

39. The appointment of a regular woman physician at each of the three State institutions to supervise the physical training and the health of women students.

### WORK AND SALARIES OF INSTRUCTORS.

40. The establishment of \$2,000 as the average salary for a department.

41. The general reduction of the number of one and two hour courses, especially in elementary work and in the first half of the college course, at the State university and the State college.



42. The reduction of the number of small classes (10 or under) at all three institutions.

43. More even distribution of teaching loads to reduce the number of large classes (30 or more) at all three institutions.

44. The employment of several additional instructors (the number to be determined by the number of student-clock-hours to be carried) at the State teachers college.

45. The provision of a greater number of courses of less than five hours a week (three-hour courses are suggested) at the State teachers college.

#### STATE AND INSTITUTIONAL ADMINISTRATION.

46. The readjustment of the official relationships between the office of the State superintendent of public instruction and the State board of education.

47. The inclusion of the president of the State college of agriculture and mechanic arts in the membership of the board of educational examiners.

48. The strict definition of the powers and functions of the finance committee.

49. The inclusion of the presidents of the State higher institutions ex officio in the membership of the State board of education, without power to vote.

50. A larger measure of faculty responsibility and a decrease of departmental autonomy at the State university.

51. The closer correlation of cognate departments in the practice school and in the academic divisions of the State teachers college.

52. The temporary discontinuance of football (and perhaps baseball) games between the State university and the State college of agriculture and mechanic arts.

## APPENDIX A.

### DISCUSSION OF CERTAIN DEPARTMENTS OF IOWA STATE COLLEGE.

#### CHEMISTRY.

As a reinforcement of the judgment of the commission with respect to the development of the department of chemistry at the Iowa State College, comparison is made between the announcement of courses in chemistry by the college and similar announcements by the University of Wisconsin and the University of Illinois. In the latter institutions it should be noted that the department of chemistry is not merely a service department, meeting the instructional and investigational needs of the colleges of agriculture and engineering and allied experimental work. These institutions have developed strong advanced and graduate courses in general, theoretical, analytical, and applied chemistry, courses such as would be expected in a unified institution embracing a college of liberal arts and sciences, as well as colleges of agriculture and engineering, and also a great graduate school, in which the department of chemistry is a major factor. The announcements of the department of chemistry in the Iowa State College cover 109 different courses, each having a number. They represent at least 320 semester hours, after excluding 17 courses for which no credit hours are specified; 14 courses out of these 17 are "research" courses. Of the 109 courses, 8 are substantially four duplicate sets of two-semester courses, covering approximately the same ground, but having slightly varied credits to fit into curricula leading to different degrees.

The corresponding announcements in chemistry in the University of Wisconsin in 1914-15 comprised about 114 courses, and in the University of Illinois about 88 courses, of which 38 were for graduates only. The total number of semester hours represented by the 88 courses at Illinois was about 273. Each semester's work at Illinois and Wisconsin has been computed as a separate course, even if announced in the catalogue as a year course with a single number.

In the announcements of the department of chemistry of the Iowa State College no hint is given as to how many of the 109 courses are given in alternate years or in sequence, or how many of them have not been given at all; nor is it quite clear how far the different courses overlap. The announcements give the impression of a symmetrical development. The following tabulation of the instructional staff of the three institutions under discussion is illuminating:

*Number of instructors.*

	Iowa State College.	University of Illinois.	University of Wisconsin.
Professors.....	2	6	6
Associate professors.....	5	2	2
Assistant professors.....		4	6
Associates.....		3	
Instructors.....	7	8	13
Assistants.....	10	19	21
Graduate assistants.....		19	
Lecturers.....			6

It needs no argument to show that a staff of 2 professors, 1 of whom is on leave of absence, 5 associate professors, 1 of whom is on leave of absence, 7 instructors, and 10 assistants, of whom some are graduate students in the department, can not give every year 109 courses, involving more than 320 semester hours. Any endeavor to give a large proportion of these courses every year would certainly lead to a lowering of the grade of instruction through overloading of instructors.

### MODERN LANGUAGES.

The department of modern languages offers instruction in French, German, and Spanish, aiming at "the selection of material to be used in the study of languages, so that they will be helpful to the student in the pursuit of the technical subjects which make up the main body of his work." In French 8 courses are offered, with a total of 23 semester hours, or if alternatives in advanced French prose be considered, 29 hours. Of this, 8 or 10 hours constitute work in elementary French, of which 6 hours are devoted to scientific French, with "selected readings in physics, chemistry, geology, and mineralogy." The purpose in giving 6 or 12 hours in advanced French prose, as announced above, is not quite clear, however, in view of the fact that so few high schools in the Middle West enable students to secure enough hours in that subject for admission, so that they could take advanced French in their freshman and sophomore years. Courses in Spanish, which are now considered important for engineers, number 4, with a total of 16 hours, of which 6 or 10 belong to elementary Spanish.

In German 20 different courses are announced, covering a maximum credit of 62 semester hours, of which 10 hours are in elementary courses for beginners and 6 for students who have had one year of high-school German. One course is for students in botany, bacteriology, chemistry, etc., 6 hours for the year; another having the same prerequisites and the same credit value is made up of "readings" in physics (such topics as sound, heat, light, and electricity), chemistry, geology, and mineralogy. A third is given in advanced German prose, a fourth in Goethe's "Faust," and a German "seminar" is devoted to some phases of Goethe's work. When compared with the modest offerings in Spanish and in French, the offerings in German appear somewhat excessive, especially when it is stated that only 5 students from home economics and industrial science constitute one of these advanced classes. In this connection it is to be noted that the Iowa State College offers a total of 62 semester hours in German as a service department, and the State University of Iowa offers 88 semester hours, exclusive of courses for graduate students only, but including a considerable number of advanced undergraduate courses designed to prepare students for strictly graduate work. The latter includes also courses which are given in alternate years, of which in 1914-15 there were 6 hours. These figures, of course, have little to do with the total number of students registered or the number of instructors required. Quite possibly the number of such students in the courses in the freshman and sophomore years is already greater at the State college than at the State university, but in these cases the larger number of students would be taking their work in sections of a single course instead of courses of different grades or different content.

## MATHEMATICS.

The department of mathematics is one of the large service departments, and has a departmental staff, perhaps the largest in the State. It is estimated that nearly 80 per cent of all the students in Iowa State college pursue some course or courses in mathematics. In its capacity as a service department, it must offer more advanced courses than the department of English in order to support the advanced technical courses in physics and engineering. A student, however, may major in mathematics in the course in industrial science, and in that case he takes a total of 36 to 41 hours in the department. The department announces 13 courses for undergraduates, 19 for undergraduates and graduates, and 5 for graduates only. The announcement of 25 of these courses follows this note: "Mathematics 48, or any subject following 48 although taught regularly but once in two years, will be given at any time when there is sufficient demand to justify the formation of a class"; 11 of the 25 were not offered in 1915-16.

The courses thus developed in the department of mathematics include, first, the usual required work in algebra, trigonometry, analytical geometry, and calculus, and then a diversified group of advanced courses comparable with those offered by any department of mathematics in a liberal arts college; advanced integral calculus, theory of the functions of a complex variable, projective geometry, infinite series, vector analysis. Special courses for the assistance of engineers are higher mathematics for electrical engineers, 3 hours; advanced dynamics, 6 hours; differential equations of mathematical physics, 3 hours; and an introduction to the mathematical theory of electricity and magnetism, 3 or 4 hours. A course of questionable propriety in this institution is "*Mathematics as applied to social and economic problems*, probability, finite differences, adjustment and use of mortality tables, annuities, life insurance and investments, and such other subjects as are adapted to the needs of those taking the subject." In this connection it is interesting to note that the offerings in the department of mathematics are more extensive and specialized than those to be found in such great engineering schools as Stevens Institute of Technology, and in Rensselaer Polytechnic Institute, which gives not only the usual undergraduate curricula in civil, electrical, and mechanical engineering, but offers graduate curricula leading to master's and doctor's degrees in engineering and science. The commission is of the opinion that the offerings of this department are more than sufficient for the needs of the college, even when the advanced work is given due weight. With a staff so large as this department has, opportunity should be given to the members to continue productive study even though they do not offer a great variety of advanced and graduate courses in mathematical specialties. The fact that these advanced courses are elected by but few students, or that some of them are given only in alternate years, does not affect the principle involved.

## PHYSICS.

An illustration of what looks like a tendency to announce a group of graduate courses in advance of any large demonstrated demand is found in the department of physics, in which a student in the division of industrial science may also major. Without discussing the announcement of several courses with substantially the same content, though with varying credit, for example, "617. Physical Laboratory. Credit 2," and "615. Physical Laboratory. Similar to

617. Credit 1," attention is called to the following announcement of eight courses:

- 850. Thesis.
- 1041. Theory of heat.
- 1042. Wave motion and sound.
- 1043. Theory of light.
- 1044. Theory of electricity and magnetism.
- 1045. Research.
- 1046. Research.
- 1047. Physics seminar.

The amount of laboratory work and the number of recitations in studies 1041 and 1047 to be arranged.

Here it should be pointed out again that the State does not need two research laboratories of physics, unless they are so definitely differentiated that the enormously expensive apparatus for the best results in physical investigation need not be duplicated in any considerable measure.

### ZOOLOGY.

The department of zoology is an interesting and significant example of a real service department, which in its announcements holds close to the purposes of a service department, at the same time including a wide range of courses which buttress the major interests of agriculture and home economics. It offers 20 courses for undergraduates, 10 for undergraduates and graduates, and 1 for graduates only; 14 of these are really courses in entomology, which in some institutions is constituted as a separate department. Students who wish to make zoology their major in the curriculum in industrial science have opportunity to specialize within this major in morphology, embryology, physiology, and entomology. The department might very well be encouraged to expand its courses in entomology, for example, "42-43. Research in entomology," giving a total of eight semester hours, into a graduate course proper, so closely is the work of entomology, and more particularly economic entomology, connected with the problems of a college of agriculture. The increasing importance of entomology as a field of scientific investigation and expert administration in the State may lead to the appointment of a State entomologist or to an entomological survey. The center of operations of such an office ought to be the State college. Just as the advanced and research work in geology should be placed at the State university, the advanced and research work in entomology should be developed at the State college, with prompt interchange of students and younger members of the faculty who develop talents in one direction or the other.

The one course for graduates only announced by the department, "Neurology, the comparative morphology and vertebrate nervous system, especially the physical anatomy, of the human brain," does not belong in the curriculum of the State college and clearly parallels a course or courses given in the State university in comparative neurology, both in the nonprofessional courses and in the college of medicine. This development of a graduate course at the State college probably represents the individual preference and strength of a professor, rather than a judiciously determined need of the department or the college.

## APPENDIX B.

### EXTENSION WORK.

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#### AT THE UNIVERSITY OF IOWA.

From the earliest days members of the staff of the University of Iowa have given lectures and courses of lectures in various parts of the State on the subject matter in which they are specialists. This type of extension work, representing a number of the departments of instruction, is still continued, but without an organized plan.

The present extension enterprise of the university is known as the extension division. It is of about two years' standing. The first year the appropriation for this work by the State was \$15,000 and for the year 1915-16 it is \$17,000. The appropriation act specifically mentions "University extension work," but does not define it.

The extension enterprise is not an organic part of the university in the sense of representing the different departments of research and instruction. It is organized separately, the responsible officer is known as the director, and he does not have a seat in the university faculty. The organization calls for eight in the staff for the current year, although two places are for the present unfilled and three of the persons give only part time. The salary budget for the year is \$12,940.

The extension division reports directly to the president of the university. Its relations with the departments of the institution are purely advisory so far as the extension division is concerned, and the cooperation is voluntary on the part of the members of the university staff. Some members of the division have given instruction to university students during the year. No fees or compensation for services are given to any members of the university staff when they are absent on extension business, but their expenses are paid from the extension fund. The regular departments or enterprises of the university receive no allotment of funds from the extension division with the single exception that an annual appropriation of \$800 is at present set aside to meet the pay roll of the Lakeside Laboratory, on Lake Okobji, in the northern part of the State. This laboratory has been in existence a number of years as a specialized study center for extension work in botany and related subjects. This allotment of \$800 does not cover all the expense of the laboratory.

The special staff for the extension division, aside from the director, is a specialist in business administration, one in educational service, one in debating and public speaking, one in accounting, one in social service, and one in social welfare. Most of these persons bear the title of instructor. The division is organized into bureaus, which are essentially projects or departments of work rather than separate secondary organizations. The general purpose of the extension division is to be of service to the people of the State, particularly to  
and to business interests in them, in the way of making surveys,

giving advice, and in the holding of meetings and conventions. The enterprises or projects are as follows:

- Municipal information;
- Social welfare;
- Child welfare;
- Educational service;
- Business administration;
- Accounting for retailers;
- Debating and public speaking;
- Lectures;
- Training camp for camp-fire guardians.

Correspondence courses for college credit are in contemplation, but are not yet definitely organized.

Aside from the staff of the extension division itself, about two dozen members of the university staff have gone into the field by arrangement with the division. The extension division feels itself at liberty to call on others, when occasion may arise, for their services. None of the officers is under obligation to partake, but the director reports the best spirit of cooperation on the part of the university membership. This cooperation may be in the nature of lectures or the conducting of more or less definite convention work, the making of special studies in localities, or undertaking research surveys.

The object of the work of municipal information is to collect and to disseminate facts on the many phases of city, town, and village life in Iowa. The division meets the inquiries of municipal officers, voluntary organizations, commercial clubs, and individuals, with information on such problems as municipal government and administration, public utilities, town and city planning, advertising, business organization and methods, street improvement, transportation, public service rates, sewage, sanitation, and municipal accounting.

The project known as business administration is distinct from the above, inasmuch as it deals with retail merchants rather than with municipalities or those representing municipal problems. The service is rendered directly to retailers and also to organizations of retailers who desire to be advised as to the best method of procedure to enable them to assist themselves in their business administration and in methods of cost accounting.

The bureau or project of accounting for retailers concerns itself chiefly with the installation of definite accounting systems in the stores or establishments. It is reported that several of the large firms in the State have taken advantage of the opportunity to secure advice as to better ways of keeping accounts.

The above descriptions of the bureaus or divisions of the work are sufficient to explain the general character of the other enterprises. These enterprises operate largely through organizations of various kinds in the towns and cities and are likely to result in conventions and in some cases in the publication of a bulletin setting forth the best experience on a given subject of inquiry. As illustrations of the kinds of meetings and conventions that have been held, the following may be mentioned: Winter short course in merchandising, under the auspices of the Sioux City Commercial Club; part of the program at Dubuque of the Iowa State Retail Merchants' Association and short course in retailing; short course in Burlington in retail merchandising; conference at Iowa City on supervision for city superintendents, county superintendents, high-school principals, grade principals, and other supervisors; conference of commercial club secretaries at Iowa City; conference of Iowa Latin teachers at Iowa City; an annual day at Iowa City; a municipal lighting day at Iowa City; cooperation in the extension of Y. M. C. A. courses in the localities. If the local organization under which the meetings are held has finances sufficient, it may pay all necessary traveling expenses. The extension division carries the expense

necessary to organize the programs in case of such meetings as business institutes, short courses, and the like. About 280 meetings have been held during the past year.

An important part of the extension enterprise is represented in the loan collection of lantern slides. There are several hundred of these slides, which are loaned to high schools. The schools are not charged for use of the slides, the teacher or the schools paying only the express charges both ways and being responsible for broken slides. These slides represent objects and methods in the teaching of botany, geography, physical geography, German, Greek history, Latin.

The extension division has issued 12 bulletins as follows: No. 1, "Street Lighting," by A. H. Ford; No. 2, "Rate Making for Public Utilities," by Wm. G. Raymond; No. 3, "Engineering as a Profession," by Wm. G. Raymond; No. 4, "Store Lighting," by Arthur H. Ford; No. 5, "Economy of Time in Arithmetic," by Walter A. Jessup; No. 6, "Vocational Guidance in High Schools," by Ervin Eugene Lewis; No. 7, "Ninth Annual Announcement of the Iowa High School Debating League," edited by O. E. Klingaman; No. 8, "Water Works Statistics of Thirty-eight Cities of Iowa, with the Meter Rates of Seventy Cities," by John H. Dunlap; No. 9, "Work, Wages, and Schooling of Eight Hundred Iowa Boys in Relation to the Problems of Vocational Guidance," by Ervin E. Lewis; No. 10, "Principles of Advertising," by Philip J. Sodergren; No. 11, "Hygienic Conditions in Iowa Schools," by Irving King; No. 12, "Tenth Annual Announcement of the Iowa High School Debating League," edited by O. E. Klingaman.

## AT THE IOWA STATE COLLEGE OF AGRICULTURE AND MECHANIC ARTS.

At Ames, extension work has assumed very large proportions, because it is founded on acts of the legislature of nearly 10 years' standing, because it receives the benefits of the Smith-Lever fund appropriated by Congress, and in part because of the character and intention of agricultural-college work in general. Two separate lines of extension enterprise issue from the institution, each under its distinct and separate organization. One is extension in agriculture and home economics and the other in engineering.

### 1. AGRICULTURE AND HOME ECONOMICS.

The extension of the results of experiment-station work, as well as of the teaching, is an enterprise of many years' operation. The legislature of 1906 authorized or defined the extension work, and the following year the statute was modified. In the former year the sum of \$15,000 was appropriated for the work and in the latter year the sum was \$27,000. The general purpose of the work as defined by the law and as practiced by the college is to extend to the people of the State the knowledge that is gained by the institution in its experimental and research work, and to make its teaching staff and organization of use to its constituency throughout the Commonwealth. Tests are made in different parts of the State, demonstrations are held, and instruction is given in corn judging and stock judging at the agricultural fairs, institutes, and clubs; farm bureau organizations are maintained; general application of the knowledge and advice accumulated at the institution is made to the farms and homes of the State.

The agricultural extension is organized in a separate department, reporting directly to the president through its director. The director of extension has



charge of the administration and organization of the various lines of extension work, receives reports from all members of the extension staff, and is himself part of the time in the field. There is a secretary of agricultural extension who does no field work, but has charge of the office force and makes the speaking, demonstration, and organization dates for the members of the extension department. Comprised in the staff of the department is a State leader of county agents, a State leader of boys' and girls' club work, a supervisor of correspondence courses, a State leader of dairy farming extension, a State leader of creamery extension work, together with such helpers as may be necessary.

The teachers giving the subject matter work throughout the State are members of the various college departments, receiving their instructions as to scientific data from the head of the department, but being under the administration of the extension director so far as appointments, dates, traveling, and salaries are concerned. Conferences between the various subject-matter departments in the college and the director or staff of the extension department tend to solidify the work and to bring all forces into close cooperation. The total extension staff, comprising the officers of the extension department and the extension teachers in the different departments or divisions of the college, numbers more than 50 persons. The subjects represented are animal and poultry husbandry, farm crops and soils, horticulture, veterinary medicine, agricultural engineering, agricultural education, rural sociology, home economics.

Cooperative extension work in agriculture and home economics is under the general oversight of the United States Department of Agriculture, under the terms of the Smith-Lever Act. The allotments of funds, by projects, for cooperative agricultural extension work for the fiscal year 1915-16 in all the States are published in the Weekly News Letters of the United States Department of Agriculture for November, 1915. The allotments for Iowa are as follows, arising from Federal, State, and local funds:

Total, \$229,878; administration, \$19,058; publications, \$71,974; county agents, \$47,210; home demonstration, \$30,000; movable schools, \$40,643; boys' club work, \$13,482; live stock, \$14,483; poultry, \$2,250; dairying, \$8,180; agronomy, \$11,875; horticulture, \$3,000; agricultural engineering, \$3,675; farm management, \$3,650; rural organization, \$1,600; other projects, \$22,798.

The projects of the agricultural extension department at Ames as planned for the year July 1, 1915, to June 30, 1916, are as follows:

- No. 1. Administration.
- No. 1-A. Printing and distribution of publications.
- No. 2. County agent work.
- No. 3. Home economics or home demonstration work.
- No. 4. Movable schools.
- No. 5. Boys' and girls' club work.
- No. 6. Pomology demonstration work.
- No. 7. Truck crops demonstration work.
- No. 8. Farm crops demonstration work.
- No. 9. Prevention of animal diseases.
- No. 10. Dairy farming extension work.
- No. 11. Creamery extension work.
- No. 12. Farm management demonstration work.
- No. 13. Animal husbandry demonstration work.
- No. 14. Poultry demonstration work.
- No. 15. Farm crops and soils demonstration work.
- No. 16. Agriculture in schools.
- No. 17. Landscape gardening demonstration work.
- No. 18. Correspondence courses.
- No. 19. Agricultural engineering extension work.
- No. 20. Rural social welfare.

## 2. ENGINEERING EXTENSION.

The extension enterprise in engineering at the Iowa State College is separate and distinct from the other extension work of the institution, being organized under its own directing officer, who is responsible to the president of the institution. This is entirely a college enterprise, being supported by appropriations that are made to the institution by the State and receiving none of the Smith-Lever fund. The sum of \$25,000 is used annually in the work. The regular staff comprises 8 persons, together with more than 20 local instructors who live at various points in the State. Aside from these are professors and associate professors in the college department of engineering who are engaged in extension enterprises. The engineering extension is coordinate with the agricultural extension and has much the same kind of organization, although dealing with a different line of problems. The engineering matters that relate particularly to the agricultural occupations are handled by the department of agricultural extension, inasmuch as they are not professional or are not taught from the point of view of the industrial classes.

The purpose of the engineering extension is to aid and instruct engineers, mechanics, supervisors of industrial concerns, and to be of service to municipalities desiring engineering advice.

The engineering extension is now projected into nine fields or lines of work, as follows:

1. The two-year vocational course at the college at Ames, for electricians, stationary engineers, mechanical draftsmen, and building superintendents. It is the purpose in this division to prepare the student definitely for the industries rather than to give the equivalent of a high-school or manual-training course. In this two-year work 6 men enrolled in 1913; 41 enrolled in 1914; in the fall of 1915 about 45 men entered. A certificate is given for this course, three being awarded in June, 1915.

2. Correspondence and class study at points outside the college. About 600 correspondents and class students in courses requiring from three months to two years for completion had been enrolled up to July, 1915. Industrial courses have been established in a number of the cities of the State, and the department has assisted in promoting and teaching industrial classes in other places. It has organized factory schools, courses for engineers and shopmen, and courses about the State in shop drawing, sheet-metal drawing, carpenter's drawing, cement products, and carpenter's arithmetic. Correspondence students are also accepted under certain conditions. All these courses are held in connection with an organization in the locality that is able to take care of the arrangements and to finance the enterprise.

3. Lecture work on technical and industrial subjects before conventions, labor unions, engineering societies, schools, and other bodies. About 82 such lectures already have been given, practically all of them by members of the extension staff.

4. Short courses for tradesmen were begun in 1913-14 by the holding of a course for painters, an enterprise that was continued the following year and which is now a permanent feature of the engineering extension work required by the master painters' association. Courses are also held for telephone operators, for telephone plant men, and for plumbers, steam fitters, janitors, and firemen.

5. The publication of bulletins in cooperation with the agricultural extension department, four of which have now been issued on manual training for rural schools. Technical bulletins have been published on street lighting, street

olling, garbage disposal, automobile topics, and also one giving a list of practical books.

6. Automobile institutes were held in 27 towns in the State in 1914, said to be the first work of its kind in the Union.

7. Manual training for rural school teachers under a regular instructor, and in cooperation with the agricultural extension department. This work is correlated with the lines discussed in the bulletins on manual training.

8. A technical service bureau has been organized to give aid to municipalities on the various subjects about which they inquire or on developments that they may be considering. This service is rendered mostly by means of talks by practical men before representative bodies or organizations in the various municipalities. These talks or demonstrations have covered the subjects of roads and pavements, electric lighting, sewers and sewage disposal, water supply, and refuse collection and disposal.

9. Moving-picture films. A set of ten moving-picture films has been used the present year in the schools for educational purposes, showing the methods in use in various industrial occupations and establishments, together with suggestions for their improvement. The success of this service has warranted larger appropriations, and it is now being considerably extended.

At the time of the visit of the commission, class work was being conducted in 14 cities and towns in the State, with a total of 400 registrations. These classes continue throughout the winter. Students taking work by correspondence alone numbered 15. In the classes meeting in the different centers for manual training, the attendance of teachers is 17 to 25. Classes meet every Saturday.

### AT THE IOWA STATE TEACHERS COLLEGE.

The extension enterprise issuing from the State Teachers College is definitely and concretely for the purpose of supplementing the previous training of teachers. Study centers are organized in the localities, usually in a high-school building, and under the direction of the county superintendent of schools. These meetings are held on Saturdays, and comprise sessions in forenoon and afternoon combined of about four hours. The study center may continue its meetings on some of the Saturdays throughout the entire school year.

The extension effort of the Iowa State Teachers College is two years old, having started in December, 1913. In the years 1913-14 and 1914-15 the work was supported entirely by counties or localities. The State has now made an appropriation of \$19,750 to cover both the per diem or salary of the instructors and the expenses.

The organization at Cedar Falls is known as the extension department of the Iowa State Teachers College, under the directorship of the head of the department of education, who reports directly to the president of the college. There is an assistant director. The heads of the subject-matter departments in the college are called on for this Saturday work in the outside localities. Aside from this, local teachers specially well qualified are secured, and at the time of the visit of the commission 39 of these outside teachers were under employment. City superintendents and other persons who are specialists in certain subject matter are drafted into the work.

The study centers in the localities are of different grades and degrees of efficiency. Some of them are at first in the nature of demonstration centers, to explain to the teachers the importance of the work and the necessity of constantly adding to their professional preparation. In 94 of the 99 courses, study

center work has been undertaken. In some cases there is only one study center in the county, particularly when there is one important railroad point where the teachers may easily assemble from parts of the county. In other counties there may be as many as four centers. Each center holds from 2 to 10 meetings in each year, averaging about 5. The number of teachers enrolled in these study centers to November 1, 1915, was 5,051.

Aside from these county centers, an intensive type of work is conducted on what is called the district-center plan. These represent smaller units, sometimes four or five in a county. The work is carried farther and in greater detail and if possible made more applicable to local conditions than in the county study centers. In 8 or 10 counties these district study centers are now organized. These district study centers are administered in the same way as the county study centers, and with the same type of local organization; they differ in their more intensive teaching.

The subject matter in the study centers of both kinds comprises the usual subjects in the school curriculum. Now that the law requires the teaching of agriculture and home economics in the schools, the demand on the part of the teachers for instruction in these subjects is naturally strong.

Inasmuch as the extension work issuing from the State Teachers College is designed only for teachers and to aid them directly in their school work, there is no conflict or duplication with other extension work in the State. At the State teachers institutes and other meetings, members of the extension staff of the State College of Agriculture and Mechanic Arts may give instruction in agriculture and home economics, and that institution also organizes boys' and girls' clubs and prosecutes other work that may have more or less direct relation to the efficiency of the schools; but that enterprise is not designed for professional work with teachers, and therefore the two enterprises proceed along their independent lines.

Under certain conditions, the teachers attending a study center may receive credit of one-half to one point in the State teachers college. The attendance on these study centers is not obligatory on the part of any teacher, but in practice nearly all the teachers of the county attend. It naturally gives them better chances for promotion and increases their efficiency in the schools.

Although covering practically the entire State, this extension work is really in its initial or formative stage. It is to be expected that very shortly it will become a more integral part of the work of the college, employing more persons both at the college and in the localities, and result in more definite credit to teachers who enroll as students, and count more specifically toward the securing or the renewing of the teachers' certificates. Already about 50 persons in the staff of the college are cooperating in these Saturday extension activities, and about an equal number from outside are also taking part as leaders, teachers, or organizers. When the work matures and assumes its full volume, it is probable that other days than Saturday will have to be given to it, and this may mean either a shift in the curriculum of the college, or else the employment of a larger staff and with some arrangement whereby this staff may be employed the other days either in teaching at the college itself or in various kinds of follow-up work in the State. The extension enterprise can not then be carried as extra duty on the part of the teachers, either in justice to the extension or to the regular teaching in the institution. The burden is now too heavy on the regular staff.

If this enlarged and solidified extension enterprise develops, it will be necessary to have some other arrangement on the part of the school system itself whereby teachers may be excused, with pay, for certain days or periods on

condition that they enroll and take part in a study-center or similar extension enterprise. In such an eventuality, which seems to follow logically from the situation, a large piece of educational organization will be required.

A regular system of college credits will also need to be devised. At present the conditions for receiving credit for college study center work are: (1) Thirty hours of class instruction for a whole credit, to be applied on the 120 hours required for graduation from the college, with (2) an additional 30 hours of home work, to be planned and assigned by the instructor in charge of the study center, and (3) a satisfactory examination on the work that has been covered. One-half credit may be secured for half of the above work. No teachers are enrolled for credit unless they have met all the conditions for college entrance. The conditions for receiving one-half credit in didactics, to apply on the rural-teachers' course or the normal course in teachers' college in the district study center work, are as follows: (1) Attendance on a district study center meeting for 16 hours of instruction; (2) presentation of one paper on some subject assigned by the local leader; (3) an examination on the book that is used as a text in the district study center course. These requirements and privileges suggest a considerable enlargement of the credit system if the professional extension work with the teachers should grow to meet the evident needs of the teachers of the State.

The commission commends this effort to provide extension teaching to aid the teachers of the State and recommends that larger appropriations be made for it to teachers' college, with a definite State-wide policy which shall have organic connection with the school system.

## APPENDIX C.

### THE HOUSING OF WOMEN STUDENTS.

Under the general authorization given by the board to discuss any matters which might, in its judgment, bear upon the welfare of the three State institutions, the commission takes the liberty of offering a few brief observations, without specific recommendations, on the housing of women students. The suggestions, which follow, are submitted rather as a summary of what appears to be the best current practice and as a tentative program for the consideration of the board than with the intention of criticizing adversely existing conditions.

Those in control of colleges and universities are manifesting a growing sense of responsibility for the moral and physical welfare of the rapidly increasing number of young women who go from the protection and care of their homes into coeducational institutions. To leave hundreds of young girls recently out of the high school, who are separated from parental influences for the first time, absolutely to their own devices in the conduct of their lives is now commonly regarded as a questionable practice. To intrust their physical well-being to uninterested boarding-house keepers is not less unwise. The girl entering college is in need of something more than intellectual training, sufficient housing, and adequate food. She requires social guidance and assistance in the establishment of character ideals. These can best be given in properly supervised dormitories.

The commission therefore commends the efforts of the State board of education to provide dormitories for the young women in the State educational institutions. There are now excellent dormitories at each of the schools, but all three need additional structures for the accommodation of young women. The immediate end which the commission believes the State should seek to attain in the institutional housing of women students might be stated as follows: There should be enough room so that the freshmen women may be cared for, with 10 per cent excess room for the accommodation of upper-class women. All first-year women, not living with relatives or friends, should be required to live in the dormitories. The surplus accommodation just mentioned permits of the retention in the dormitories of a certain number of mature students, by which arrangement the maintenance of a stable house government is furthered.

It is the opinion of the commission that large dormitories, housing from 100 to 150 women, directed by one preceptress, present certain social disadvantages. Since the rooms occupied by the young women are study rooms as well as sleeping apartments, the grouping of large numbers of students together in one dormitory renders it difficult, if not impossible, to insure quiet. No matter what is decided upon as the best exterior effect, it is suggested that dormitory structures should have an interior arrangement in which the maximum accommodation in one section does not exceed 60. Provision should be made in each new dormitory constructed for evening games and dancing in the hour of recreation and relaxation immediately after supper.

It is entirely feasible to cook for all the women students at the institution in one adequately equipped kitchen, but it is believed that there is a gain in the

conditions of social intercourse if the number dining together is restricted to the above-mentioned maximum of 60. The cafeteria plan of feeding students may be economical. The commission favors the table of a well-administered dormitory, however, as more nearly approximating family conditions. Particularly as a boarding place for women students, the cafeteria has one very objectionable feature, namely, that the decision as to the amount of food to be purchased is left to the customer. Under these circumstances women students, out of caprice or because of the desire to economize, are likely to underfeed themselves. The commission thinks that an advisory relationship between the food-service department and the home-economics department should be established at each institution to make sure that the food shall be nourishing and attractive as well as furnished at the minimum cost to the institution and the student.

The commission is of the opinion that there should be systematic inspection and approval of the lodging quarters maintained at each institution. It suggests that the dean of women be authorized to exercise special supervision over the housing of women students in private residences, rooming houses, and sorority buildings, as well as in the institutional dormitories. In the performance of this task she may find it desirable to hold weekly advisory meetings with the women in control of the houses.

The question of rest rooms for women students has also been called to the commission's attention. Not infrequently a young woman must secure an hour's relaxation in a horizontal posture in order to be able to continue her class work. It may consume too much time if she goes to her room, and the fatigue of going and returning may offset the benefit gained. Indeed, if she reaches her own room she seldom returns until the next day. To meet these conditions the provision of rest rooms for women students, especially on the university campus, is advised.

## **APPENDIX D.**

### **SUBSTANCE OF LETTER ADDRESSED TO THE EDITORS OF JOURNALS PUBLISHED IN THE STATE OF IOWA.**

At the request of the Iowa State Board of Education, the United States Commissioner of Education has appointed a survey commission to make a report upon the conditions and needs of the three State-supported institutions of higher education in the State of Iowa. Among the questions suggested for the consideration of this commission is that of the extension of courses in journalism. In order to facilitate the investigation of this question, the survey commission desires certain facts as to the services rendered hitherto by the Iowa colleges and college men to the journals of the State. The survey commission will, therefore, be especially grateful to you for information regarding two or three specific matters concerning the editorial and managerial staff of your publication. This, of course, excludes compositors or machine men, skilled laborers in binderies, stenographers, and bookkeepers.

1. How many persons are employed in the editorial and business departments?
2. How many of these are college men or women?
3. How many of these are graduates of colleges or universities in the State of Iowa?
4. Is there, in your judgment, a large and growing demand for men technically trained in journalism as a profession comparable with the profession of law or railroad management?



# **APPENDIX E.** **BUILDINGS AND CLASSIFICATION OF SPACE.**

[With space reported by authorities.]  
AT STATE UNIVERSITY OF IOWA.

Buildings.	Date erected.	Instructional.							Un-sched-uled.	Total.	Accessory.		Total found on floor plans.	Total re-ported.*	
		Scheduled.					Total.	Admin-istration.			Other.	Total.			
		Class.	Labora-tories.	Mixed.	Square feet.	Average "O." "I."									Average "T." "I."
Chemistry.....	1890	4,783	10,023	.....	14,806	56.475	36.138	20.41	18,088	5,685	3,944	9,629	440	26,167	30,307
Engineering.....	1905-1909	.....	.....	18,134	18,134	68.980	45.500	31.39	21,754	3,675	8,212	11,887	423	34,064	54,799
Engineering shops.....	1910-1914	.....	7,281	.....	7,281	.....	455.300	.....	10,359	1,105	1,329	2,434	.....	12,783	12,040
Home economics.....	1865-1915	2,072	2,076	1,561	5,709	65.750	19.713	12.96	6,849	1,771	1,964	3,725	.....	9,574	14,409
Law.....	1910	7,398	.....	.....	7,398	49.925	19.835	9.88	7,710	2,158	17,864	20,022	.....	27,732	26,660
Liberal arts.....	1897	14,128	1,332	.....	15,460	44.287	39.165	17.37	16,804	12,205	31,528	43,733	6,556	67,393	74,292
Men's gymnasium.....	1905-1915	.....	.....	1,176	9,030	42.658	54.166	23.14	28,187	5,933	19,177	25,110	.....	53,297	42,692
Natural science.....	1904	3,298	4,557	1,176	7,495	47.083	34.304	16.16	9,540	8,091	40,378	48,369	10,972	86,881	74,804
Old science.....	1884	7,306	12,028	3,562	19,334	54.700	46.001	25.16	9,539	5,037	5,713	10,750	.....	21,277	22,372
Physics.....	.....	.....	.....	.....	.....	.....	.....	.....	16,472	15,410	31,883	.....	1,266	56,062	64,660
Total.....	.....	39,911	40,284	24,452	104,647	429.558	294.822	156.47	180,764	62,132	145,409	207,541	20,895	379,190	417,635
Plant average.....	.....	.....	.....	.....	.....	53.722	36.852	19.82	.....	.....	.....	.....	.....	.....	.....

## AT IOWA STATE COLLEGE.

Agricultural Engineer- ing Hall.....	1893	1,776	7,758	2,783	12,317	65,120	39,739	25,845	416	12,733	4,357	5,071	9,428	695	22,556	22,890
Agricultural Engineer- ing Annex.....	1903	676	4,937		5,613	46,325	46,575	21,576	6,541	12,154	3,326	5,514	8,840		20,994	19,400
Agricultural Hall.....	1907-8	8,843	5,814	876	15,533	56,983	30,843	17,572	3,350	18,883	19,337	22,983	42,300		73,560	70,869
Central Hall.....	1904-5	16,960	4,948		21,908	50,945	55,142	28,046	1,018	22,926	13,760	36,376	50,136		76,816	72,227
Engineering Annex.....	1910	5,242	5,956	1,530	12,728	49,680	44,006	21,988	6,273	19,001	5,235	7,452	12,687		32,000	32,632
Engineering Hall.....	1901-2	3,522	7,057	11,265	21,864	38,491	44,199	17,017	1,446	23,310	5,945	21,190	27,044		53,218	52,008
Forge shop.....	1896		2,660		2,660	44,000	100,000	44,000		2,660	234		234		2,964	2,906
Gymnasium.....	1912-13	4,966			4,966	79,400	50,000	38,700	35,069	40,035	1,857	11,648	13,505		53,540	47,245
Home economics.....	1909-10	1,761	9,287		11,038	63,855	47,265	30,225	3,196	14,234	3,601	8,460	12,061		26,265	24,492
Morrill Hall.....	1891	1,864	2,175		3,039	41,625	35,225	14,643	20	3,059	8,001	6,357	14,358		20,147	20,262
Total.....		44,000	50,592	16,474	111,666	536,424	492,993	260,492	57,329	168,995	65,553	125,040	190,563		382,714	364,891
Plant average.....						53,642	49,299	26,440								

## AT IOWA STATE TEACHERS COLLEGE.

Auditorium.....	1901	14,719			15,628	57,775	38,348	20,98	408	16,031	1,423	40,094	41,517	1,012	58,560	82,036
Domestic science (temp.).....	1887			909	2,635	70,000	45,500	31,85		2,635	64		64		2,669	1,000
Central Hall.....	1897	6,544	3,420	2,635	9,964	64,880	47,406	30,72	872	10,896	922	6,990	7,922	320	19,078	22,400
Glenn Hall.....	1892	1,947	780	4,131	6,873	67,793	50,560	34,31	2,536	10,414	310	15,768	16,078		26,492	26,740
Administration.....	1895	7,474			8,326	66,880	56,610	30,31	1,861	10,187	3,868	16,339	20,237		30,424	28,008
Teachers' training school.....	1912	18,086	2,741		20,827	61,155	26,880	16,46	1,669	22,486	4,140	15,328	19,966		45,835	63,020
Gymnasium.....	1903	22,430			22,430	31,250	30,100	9,43	1,628	24,056	2,056	15,686	17,742		41,798	46,540
Laboratory.....	1906	2,538	8,550		11,088	60,297	36,542	22,01	4,523	15,411	2,867	6,555	9,422		24,583	28,672
Total.....		73,738	15,491	8,547	97,776	479,980	318,945	196,26	14,290	112,066	15,690	117,268	132,948		249,719	297,416
Plant average.....						59,997	39,868	23,93								

1. Where ratio is not given, complete information was lacking.

2. See note on p. 106.

3. By superintendent of buildings or other official, verbally or in writing; discrepancies between "found" and "reported" space probably due to scale calculations and exterior measurements.

4. Not included in plant T.

5. Basement included.

6. Basement not included.

# APPENDIX F.

## STUDENT CLOCK HOURS, SALARIES, EXPENDITURES.

### UNIVERSITY OF IOWA. BOTANY.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
professor .....	\$2,500	168	252
professor .....	2,400	315	292
assistant professor .....	1,600	35	131
assistant .....	900	38	82
assistant .....	900	151	125
assistant .....	800	41	58
Total .....	9,100	748	963
Average .....	1,517	124	160

Classes.	Students in class.				
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40
Number of classes:					
First semester .....	12	6	4	4	2
Second semester .....	9	6	5	5	

### CHEMISTRY.<sup>1</sup>

Instructors.	Salary.	Instructors.	Salary.
professor .....	\$3,000	(one-half time) .....	\$600
assistant professor .....	1,900	assistant .....	900
assistant professor .....	1,800	assistant (one-half time) .....	500
assistant professor .....	1,800	assistant (one-quarter time) .....	300
instructor .....	1,200	assistant .....	100
instructor .....	1,000	storekeeper <sup>2</sup> .....	700
instructor .....	1,000		
instructor .....	1,000	Total (11½) .....	16,100
instructor .....	1,000	Average .....	1,430

Classes.	Students in class.						
	1 to 5	6 to 10	11 to 20	31 to 40	59 to 67	80	114
Number of classes:							
First semester .....	10	8	1	1	1	1	1
Second semester .....	12	6			2		1

<sup>1</sup> Total number of student clock hours, first semester, 1,968; average, 178; second semester, 1,466; average, 130.

<sup>2</sup> Not included in total.

## EDUCATION.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
dean .....	\$3,500	142	144
professor .....	2,500	234	160
assistant professor .....	1,800	152	278
assistant professor .....	1,600	382	378
associate professor .....	2,200	132	82
lecturer ( $\frac{1}{2}$ time) .....	500	8	6
stenographer <sup>1</sup> .....	1,900		
Total (5 $\frac{1}{2}$ ) .....	12,100	1,050	1,048
Average .....	2,300	200	200

<sup>1</sup> Not included in total.

## MODEL SCHOOL.

Instructors.	Salary.	Instructors.	Salary.
teacher .....	\$700	teacher .....	\$80
teacher .....	600	teacher .....	80
teacher .....	800	teacher .....	80
teacher .....	80	teacher .....	80
teacher .....	80	teacher .....	80
teacher .....	80	Total .....	2,820

## ENGLISH.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
professor and dean .....	\$3,500	133	138
assistant professor .....	1,900	401	397
assistant professor .....	1,900	396	354
assistant professor .....	1,900	370	386
assistant professor .....	1,900	258	212
assistant professor .....	1,900	355	275
instructor .....	1,200	192	176
instructor .....	1,300	345	329
instructor .....	1,000	289	254
instructor .....	1,200	197	193
instructor .....	1,200	220	256
instructor .....	1,200	248	310
<sup>1</sup> (one-fourth time) .....	300	68	100
Theme readers, 2 instructors .....	1,995		
Office assistant <sup>2</sup> .....	1,300		
Total (14 $\frac{1}{2}$ ) .....	22,395	3,472	3,380
Average .....	1,580	243	237

Classes.	Students in class.						
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 65
Number of classes:							
First semester .....	1	3	17	24	12	3	1
Second semester .....	1	5	21	23	10	1	3

<sup>1</sup> Head of department of English, Iowa City high school.<sup>2</sup> Not included in total.

## PUBLIC SPEAKING.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
....., assistant professor.....	\$1,650	212	174
....., assistant.....	900	270	286
....., assistant.....	100		
Total (3).....	2,650	482	460
Average.....	1,325	241	230

Classes.	Students in class.					
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50
Number of classes:						
First semester.....	1	3	5	1	2	1
Second semester.....	2	3	2	2	2	1

## GEOLOGY.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
....., professor.....	\$2,600	231	232
....., professor.....	2,100	548	647
....., assistant professor.....	1,500	353	335
....., graduate student (one-third time).....	500	192	235
....., graduate student (one-third time).....	500	163	150
....., scholar (one-fifth time).....	150	148	84
Total (344).....	7,350	1,635	1,692
Average.....	1,900	486	501

Classes.	Students in class.					
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50
Number of classes:						
First semester.....	2	4	2	2	4	1
Second semester.....	2	5	3	3	4	2

## GERMAN.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
....., professor.....	\$3,000	344	288
....., assistant professor.....	1,650	375	340
....., assistant professor.....	1,500	319	325
....., assistant professor.....	1,650	488	344
....., assistant professor.....	1,500	392	302
....., instructor.....	1,200	468	406
....., assistant (4 months).....	80		
....., instructor.....	1,200	347	268
Total.....	11,700	2,733	2,308
Average.....	1,671	390	320

## GERMAN—Continued.

Classes.	Students in class.					
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	52 to 69
Number of classes:						
First semester.....	1	5	9	13	10	1
Second semester.....	3	4	13	17	2	1

## GREEK.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
—, professor and University editor.....	\$3,000	77	151
—, instructor <sup>1</sup> (one-third time).....	400	17	16
—, stenographer.....	433		
Total (14).....	3,400	94	167
Average.....		71	125

Classes.	Students in class.			
	1 to 5	6 to 10	11 to 20	30 to 40
Number of classes:				
First semester.....	4	3	2	.....
Second semester.....	4	4	1	1

<sup>1</sup> Also manager of athletics, \$1,900.

## HISTORY.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
—, assistant professor and dean of women (one-fourth time).....		40	34
—, professor and dean.....	\$3,500	77	87
—, professor.....	2,100	154	172
—, assistant professor.....	2,000	206	185
— (one-fourth time).....	300	15	52
—, assistant (read notebooks) (one-fourth time).....	500		
—, assistant (read notebooks) (one-fourth time).....	200		
—, instructor.....	1,200	724	687
Total (5).....	9,800	1,216	1,217
Average.....	1,960	251	243

Classes.	Students in class.					
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	50 to 62
Number of classes:						
First semester.....	6	5	4	3	1	2
Second semester.....	5	3	7	2	2	2

## LATIN.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
—, professor .....	\$3,000	226	202
—, professor .....	2,100	82	84
—, assistant professor .....	1,500	163	147
Total (3) .....	6,600	471	433
Average .....	2,200	157	144

Classes.	Students in class.			
	1 to 5	6 to 10	11 to 20	21 to 30
Number of classes:				
First semester .....	4	6	5	2
Second semester .....	4	6	6	1

## MATHEMATICS.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
—, professor .....	\$3,000	112	121
—, assistant professor .....	1,750	75	32
—, assistant professor .....	1,750	276	204
—, instructor .....	1,200	344	205
—, instructor .....	1,200	375	212
—, instructor .....	1,000	344	205
—, instructor .....	1,200	290	250
—, instructor (one-fifth time) .....	300	8	19
Total (7½) .....	11,400	1,824	1,148
Average .....	1,580	253	159

Classes.	Students in class.			
	1 to 5	6 to 10	11 to 20	21 to 30
Number of classes:				
First semester .....	7	7	11	5
Second semester .....	9	8	11	2

<sup>1</sup> Sick second semester; others carried load.<sup>2</sup> Instructor in high school, full time.

## PHILOSOPHY AND PSYCHOLOGY.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
—, dean .....	\$3,500	447	416
—, professor .....	2,500	102	86
—, professor .....	2,400	165	200
—, assistant professor .....	1,600	521	471
—, assistant professor .....	1,500	192	170
Total (5) .....	11,500	1,377	1,343
Average .....	2,300	275	269

## PHILOSOPHY AND PSYCHOLOGY—Continued.

Classes.	Students in class.					
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	144 to 173
Number of classes:						
First semester.....	5	4	4	2	0	2
Second semester.....	5	3	4	1	1	2

## MILITARY TRAINING.

Instructors.	Salary.	Instructors.	Salary.
_____, professor.....	\$500	_____, bandmaster .....	\$500
_____, assistant.....	500	Band members.....	400

## PHYSICAL TRAINING FOR MEN.

Instructors.	Salary.	Instructors.	Salary.
_____, director.....	\$1,600	_____, physical director.....	\$1,200
_____, assistant.....	100	_____, assistant.....	300
_____, assistant.....	100		

## PHYSICAL TRAINING FOR WOMEN.

Instructors.	Salary.	Instructors.	Salary.
_____, director.....	\$1,500	_____, matron .....	\$300
_____, assistant.....	800	_____, medical examiner.....	250
_____, assistant.....	600		

## PHYSICS.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
_____, professor.....	\$3,000	57	186
_____, assistant professor.....	1,850	424	356
_____, assistant professor.....	1,850	335	130
_____, instructor.....	1,200	323	270
_____, assistant (half time).....	600	234	243
_____, assistant (half time).....	600	252	234
_____, assistant (half time).....	500	148	180
_____, mechanician <sup>1</sup> .....	1,350		
_____, shop assistants <sup>1</sup> .....	1,200		
_____, undergraduate assistant.....	75	57	51
_____, undergraduate assistant.....	75		
_____, undergraduate assistant.....	75		
Total (6).....	9,825	1,817	1,680
Average.....	1,634	303	280

Classes.	Students in class.							
	1 to 5	6 to 10	11 to 20	21 to 30	69	73	111	133
Number of classes: <sup>2</sup>								
First semester.....	8	4	18	3	0	1	0	1
Second semester.....	10	4	14	5	1	0	1	.....

<sup>1</sup> Not included in total.<sup>2</sup> Lecture and laboratory both counted. About two-thirds as many small classes.



## POLITICAL ECONOMY AND SOCIOLOGY.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
—, professor .....	\$3,000	283	Sick.
—, professor .....	2,400	332	355
—, associate professor .....	2,400	529	435
—, instructor (three-fourths time) .....	1,500	177	259
—, assistant professor .....	1,800	397	494
—, assistant (half time) .....	500	154	270
Stenographer, assistant <sup>1</sup> .....	1,300		
—, medical school .....	0	22	70
—, law school .....	0	42	28
—, extension .....	0	22	16
—, extension .....	0	24	38
—, extension .....	0	54	53
Total (51) .....	11,600	2,041	2,018
Average .....	2,200	388	834

Classes.	Students in class.								
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51	68	80
Number of classes:									
First semester .....	6	5	8	4	1	5	1	1	1
Second semester .....	6	5	6	2	8	1	1	1	1

<sup>1</sup> Not included in total.

## POLITICAL SCIENCE.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
—, <sup>1</sup> professor .....	\$2,600	327	368
—, assistant professor .....	1,750	285	315
—, instructor (half time) .....	500	117	156
—, assistant (half time) .....	500	176	180
—, assistant (half time) .....	500	102	176
—, lecturer .....	100	28	54
Total (34) .....	5,950	1,035	1,249
Average .....	1,700	296	356

Classes.	Students in class.							
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50	56	68
Number of classes:								
First semester .....	3	2	4	2	5	0	1	0
Second semester .....	3	1	1	7	4	1	0	1

<sup>1</sup> Was also director of Iowa Historical Society and drew salary as such.

## ROMANCE LANGUAGES.

Instructors.	Salary.	Student clock hours.	
		First Semester.	Second semester.
—, professor .....	\$2,800	503	363
—, assistant professor .....	1,500	526	318
—, instructor .....	1,200	302	260
—, instructor .....	1,000	437	481
Total (4) .....	6,500	1,768	1,422
Average .....	1,625	442	356

Classes.	Students in class.					
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50
Number of classes:						
First semester .....	2	2	5	2	5	2
Second semester .....	2	4	6	5	1	1

## ZOOLOGY.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
—, professor and director .....	\$3,000	315	300
—, professor .....	2,300	506	539
—, professor .....	2,100	277	305
—, assistant professor .....	2,000	72	78
—, assistant professor .....	1,600	318	145
—, instructor .....	1,100	186	159
—, assistant .....	1,000	110	108
—, assistant .....	400	62	56
—, assistant .....	350	186	158
—, assistant .....	200	53	46
—, undergraduate assistant, half time .....	50	101	85
—, undergraduate assistant, half time .....	50	101	85
—, storekeeper, half time <sup>1</sup> .....	1 50		
—, mimeographer, half time <sup>1</sup> .....	1 50		
—, mimeographer, half time <sup>1</sup> .....	150		
Total (24) .....	14,300	2,387	2,152
Average .....	1,685	279	253

Classes.	Students in class.									
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 60	74	81	90
Number of classes:										
First semester .....	10	4	3	2	7	2	1	0	0	2
Second semester .....	12	4	4	4	2	4	0	1	1	0

<sup>1</sup> Not included in total.

## HOME ECONOMICS.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
_____, professor.....	\$3,000	268	159
_____, assistant professor.....	2,500	603	594
_____, instructor.....	900	246	230
_____, clerk to dean.....	1 960	.....	.....
Total (3).....	6,400	1,127	983
Average.....	2,133	376	328

Classes.	Students in class.						
	1 to 5	6 to 10	11 to 20	55	56	63	71
Number of classes:							
First semester.....	0	1	1	.....	1	.....	1
Second semester.....	2	2	1	1	.....	1	.....

<sup>1</sup> Not included in total.

# IOWA STATE COLLEGE OF AGRICULTURE AND MECHANIC ARTS. AGRICULTURAL EDUCATION.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
_____, professor.....	\$2,700	51	191
_____, assistant professor (one-third time).....	500	30	174
_____, assistant professor.....	2,000	141	226
_____, assistant (one-half time).....	1,000	100	56
Total (24).....	6,200	323	627
Average.....	2,200	114	222

Classes.	Students in class.			
	6 to 10	11 to 20	31 to 40	51 to 60
Number of classes:				
First semester.....	5	1	3	.....
Second semester.....	2	3	2	2

## AGRICULTURAL JOURNALISM.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
_____, professor (one-fourth time).....	\$712	90	146
_____, assistant professor.....	1,450	146	170
Total (1½).....	2,162	236	316
Average.....	1,730	189	252

## AGRICULTURAL JOURNALISM—Continued.

Classes.	Students in class.				
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40
Number of classes:					
First semester .....		3	4	2	
Second semester .....	2	1	5	2	1

## AGRICULTURAL ENGINEERING.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
....., instructor .....	\$1,100	640	576
....., instructor .....	1,100	748	472
....., instructor .....	1,300	438	440
....., instructor .....	1,300	347	368
....., professor (one-half time; experiment station one-half time) .....	1,500	126	275
....., assistant professor .....	1,800	600	476
....., associate professor .....	2,250	315	342
Total (5½) .....	10,350	3,214	2,950
Average .....	1,590	495	455

Classes.	Students in class.					
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50
Number of classes:						
First semester .....	1	5	13	13	11	2
Second semester .....	3	8	22	15	6	1

## ANIMAL HUSBANDRY.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
....., professor (one-half time) .....	\$1,500	624	255
....., professor .....	2,600	552	526
....., associate professor .....	1,700	627	724
....., associate professor .....	1,900	568	565
....., associate professor .....	1,600	662	573
....., associate professor .....	1,700	678	712
....., professor (one-half time) .....	1,250	173	190
....., scholar .....	200	(4)	(lab.) 124
....., scholar .....	200	(4)	(lab.) 112
....., professor (one-half time at dairy farm) .....	1,250	(4)	226
....., assistant professor .....	250	(4)	184
....., .....	.....	(4)	115
....., .....	1,500	90	92
Total (7½) .....	15,650	3,974	4,401
Average .....	2,170	528	517

Classes.	Students in class.									
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 60	61 to 70	81 to 90	125
Number of classes:										
First semester .....		2	2	7	13	7	2	4	1	1
Second semester .....	1	.....	5	19	21	7	1	1	.....	1

## BACTERIOLOGY.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
—, professor and dean (nine-tenths time).....	\$2,700	132	237
—, assistant (one-half time).....	500	84	184
—, assistant professor (six-sevenths time).....	1,200	173	274
—, assistant (one-half time).....	600	53	232
Total .....	5,000	442	927
Average .....	1,850	164	342

Classes.	Students in class.					
	1 to 5	6 to 10	11 to 20	21 to 30	41 to 50	51 to 60
Number of classes:						
First semester.....	14	4	7	1		
Second semester.....	6	6	15		1	1

## BOTANY.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
—, professor (thirteen-fifteenths time).....	\$2,600	274	316
—, associate professor.....	2,000	548	193
—, assistant professor.....	1,350	211	385
—, instructor (one-half time).....	600	150	95
—, instructor.....	900	222	315
—, fellow (two-fifths time).....	400	126	34
—, instructor.....	800	506	293
—, student assistant (one-fifth time).....	200	240	134
—, student assistant (one-fifth time).....	200	256	78
—, student assistant (one-fifth time).....	200	126	244
— (one-tenth time).....	50		78
— (one-tenth time).....	50		56
— (one-tenth time).....	50		69
— (one-tenth time).....	50		40
Total (64).....	9,450	2,668	2,350
Average .....	1,490	423	349

Classes.	Students in class.							
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 60	61 to 70
Number of classes:								
First semester.....	14	6	15	23	6	1	2	2
Second semester.....	1	4	21	16	5	5	3	

## CHEMISTRY.

Instructors.	Salary.	Instructors.	Salary.
professor.....	\$2,700	assistant.....	\$900
associate professor.....	1,800	assistant.....	900
associate professor.....	1,800	assistant.....	950
associate professor.....	1,800	instructor.....	900
instructor.....	1,300	instructor.....	800
instructor.....	1,200	instructor.....	800
instructor.....	1,200	instructor.....	800
instructor.....	1,000	assistant instructor (three-fourths time).....	700
instructor.....	900	associate professor.....	2,000
assistant instructor.....	900	student assistant (one-tenth time).....	
instructor (one-fourth time).....	300	(one-sixth time).....	
assistant (one-half time).....	400	17 others.....	
assistant.....	850		

Instructors.	Salaries.	Student clock hours.	
		First semester.	Second semester.
Total (24).....	\$26,492	10,572	9,095
Average.....	1,060	430	372

Classes.	Students in class.											
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 60	61 to 70	71 to 80	81 to 90	91 to 100	100 to 325
Number of classes:												
First semester.....	27	5	40	34	14	8	5	2	1	1	1	6
Second semester.....	28	13	29	19	12	2	9	2	0	2	2	7

The whole number of student clock hours was, for the first semester, 10,572; for the second semester, 9,095. The average for first semester was 430; for the second semester, 372.

## CIVIL ENGINEERING.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
assistant professor.....	\$1,400	606	895
associate professor.....	2,000	534	617
instructor.....	1,000	679	407
professor (four-fifths time).....	2,200	331	477
professor.....	2,400	378	190
professor and dean.....	4,000		164
instructor (half time).....	800	156	115
associate professor (seventeen-eighteenths time).....	1,700	96	68
associate professor (five-sixths time).....	1,500	167	155
associate professor (three-fifths time).....	1,500	169	42
instructor.....	1,200	192	132
Total (84).....	16,000	3,308	3,262
Average.....	1,820	376	373

Classes.	Students in class.							
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 60	61 to 70
Number of classes:								
First semester.....	12	16	21	10	1	1	1	.....
Second semester.....	11	11	14	8	3	1	1	1

## DAIRY.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
—, professor (half time).....	\$1,500	169	198
—, associate professor (half time).....	1,000	53	182
—, associate professor.....	1,900	554	678
—, instructor.....	1,500	.....	48
—, instructor.....	1,200	10	173
—, instructor.....	1,200	.....	464
Total (4).....	8,300	786	1,743
Average.....	1,840	197	349

## ECONOMIC SCIENCE.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
—, professor (twenty-two twenty-fifths time).....	\$2,200	235	58
—, assistant professor (half time).....	900	19	72
—, associate professor (three-fourths time).....	1,500	360	93
—, assistant professor.....	1,500	315	282
Total (3).....	6,100	929	505
Average.....	2,030	310	168

Classes.	Students in class.						
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 60
Number of classes:							
First semester.....	1	3	1	2	2	3	2
Second semester.....	1	6	4	1	1	2	.....

## ELEMENTARY ENGLISH.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
—, professor (twenty-seven twenty-ninths time).....	\$2,700	212	146
—, assistant professor.....	1,900	47	192
—, assistant professor.....	1,500	204	111
—, assistant professor.....	1,400	114	153
Total (4).....	7,500	577	602
Average.....	1,875	144	150

Classes.	Students in class.					
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50
Number of classes:						
First semester.....	1	5	5	1	2	.....
Second semester.....	1	3	7	3	.....	1

## ENGLISH AND LITERATURE.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
professor .....	\$2,500	60	36
instructor .....	900	183	122
instructor .....	1,100	292	185
assistant professor .....	1,400	254	144
instructor .....	900	276	242
instructor .....	1,150	232	132
assistant professor .....	1,250	110	126
associate professor .....	1,700	194	98
instructor .....	1,000	221	172
associate professor .....	1,400	138	218
assistant professor .....	1,400	222	192
instructor .....	1,200	228	234
instructor .....	950	318	160
instructor .....	950	219	139
instructor .....	1,000	74	159
Total .....	18,800	3,026	2,359
Average .....	1.253	202	157

Classes.	Students in class.				
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40
Number of classes:					
First semester .....	4	15	42	27	.....
Second semester .....	3	7	22	.....	1

## HOME ECONOMICS.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
professor and dean .....	\$2,500	207	76
instructor .....	1,000	249	363
instructor .....	1,200	328	310
instructor .....	900	200	379
associate professor .....	1,200	468	394
associate professor .....	1,600	125	55
associate professor .....	1,300	418	537
instructor .....	1,200	532	402
instructor .....	1,000	301	251
assistant professor (half time) .....	700	299	.....
instructor .....	1,000	386	272
associate professor (half time) .....	750	339	.....
instructor .....	1,000	386	322
instructor .....	1,000	488	356
assistant professor (two-thirds time) .....	1,000	179	174
instructor (half time) .....	700	.....	402
associate professor (half time) .....	1,050	.....	242
Total (15½) .....	19,100	4,905	4,535
Average .....	1,320	346	321

Classes.	Students in class.							
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 60	61 to 70
Number of classes:								
First semester .....	1	2	51	30	10	2	3	1
Second semester .....	2	5	41	28	4	5	0	0



## FARM CROPS.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
_____, professor (half time).....	\$3,000	309	525
_____, instructor.....	1,300	142	157
_____, instructor.....	1,200	420	192
_____, assistant professor.....	2,000	550	273
_____, associate professor.....	2,100	487	525
_____, fellow (two-fifths time).....	400	298	100
_____, professor (half time, farm management).....	1,200	315	.....
_____, fellow (two-fifths time).....	200	105	.....
_____, fellow (two-fifths time).....	300	.....	101
_____, scholar.....	200	.....	21
Total (7 1/2).....	11,900	2,626	1,893
Average.....	1,630	387	320

Classes.	Students in class.						
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 60
Number of classes:							
First semester.....	1	4	5	15	19	1	.....
Second semester.....	2	3	4	21	6	.....	1

<sup>1</sup> Experiment station.

## HORTICULTURE.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
_____, professor and vice dean (20/33 time).....	\$2,000	343	18
_____, instructor.....	1,300	301	250
_____, instructor.....	1,300	222	251
_____, instructor.....	1,200	297	283
_____, assistant professor.....	1,500	312	305
_____, instructor.....	1,200	152	61
Total (5 20/33).....	8,500	1,627	1,168
Average.....	1,500	286	206

Classes.	Students in class.							
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 60	61 to 70
Number of classes:								
First semester.....	11	8	14	15	.....	3	.....	1
Second semester.....	13	5	9	11	1	.....	.....	.....

## MECHANICAL ENGINEERING.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
professor (27/29 time).....	\$2,700	210	395
instructor.....	1,100	1,650	927
instructor.....	1,050	558	492
instructor.....	1,050	850	156
instructor.....	1,050	792	576
assistant professor.....	1,300	333	928
instructor.....	1,050	254	378
instructor.....	900	58	378
assistant professor.....	1,500	164	188
associate professor.....	2,200	231	170
assistant professor.....	1,500	250	235
associate professor.....	1,950	201	300
associate professor.....	1,900	331	265
associate professor.....	1,700	498	278
instructor.....	1,000	.....	158
student assistant.....	200	.....	253
Total (14 24/29).....	22,150	6,398	6,075
Average.....	1,475	426	430

Classes.	Students in class.									
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 60	61 to 70	71 to 80	
Number of classes:										
First semester.....	10	7	34	13	9	8	1	1	1	
Second semester.....	43	39	37	22	5	2	2	.....	.....	

## PHYSICS.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
professor (14/15 time).....	\$2,800	609	.....
instructor.....	1,100	246	88
assistant professor.....	1,300	114	240
assistant professor.....	1,500	418	342
assistant professor.....	1,500	225	617
instructor.....	1,000	274	236
instructor.....	1,000	74	248
instructor.....	1,200	275	86
assistant professor.....	1,400	125	177
instructor (half time).....	500	.....	252
Total (9 6/15).....	13,300	2,360	2,186
Average.....	1,490	266	220

Classes.	Students in class.									
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	71 to 80	81 to 90	100 to 120	136 to 200	
Number of classes:										
First semester.....	3	2	37	6	2	3	.....	1	.....	
Second semester.....	2	14	57	3	.....	1	3	.....	.....	2

## ZOOLOGY.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
(eleven-thirteenths time).....	\$2,200	4	(1) 484
associate professor.....	2,000	180	375
instructor.....	1,000	326	160
associate professor (half time).....	850	122	400
assistant professor.....	1,300	330	154
instructor (half time).....	600	49	240
instructor (half time).....	600	214	743
assistant professor.....	1,500	248	31
assistant professor.....	1,600	293	216
(one-tenth time).....	50	---	---
(one-tenth time).....	65	217	---
Total (7½).....	11,765	1,819	2,967
Average.....	1,560	290	456

Classes.	Students in class.								
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 60	71 to 80	81 to 90
Number of classes:									
First semester.....	7	13	18	5	---	1	---	1	1
Second semester.....	21	14	31	7	2	1	6	1	1

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## MATHEMATICS.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
instructor.....	\$1,200	274	302
instructor.....	1,300	233	318
associate professor.....	1,600	221	381
instructor.....	1,200	320	294
instructor (half time).....	500	269	---
instructor.....	850	238	226
assistant (half time).....	500	275	---
associate professor.....	1,600	297	250
associate professor.....	1,600	212	251
associate professor.....	1,600	286	243
instructor.....	1,300	307	231
instructor.....	1,000	267	208
professor (vice dean).....	2,100	215	112
Total.....	16,350	3,414	2,815
Average.....	1,370	262	235

Classes.	Students in class.			
	1 to 5	6 to 10	11 to 20	21 to 30
Number of classes:				
First semester.....	3	0	32	11
Second semester.....	7	1	24	9

## PUBLIC SPEAKING.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
_____, instructor .....	\$1,100	178	59
_____, instructor .....	900	35	52
_____, associate professor .....	1,400	264	224
Total .....	3,400	397	333
Average .....	1,133	132	108

Classes.	Students in class.			
	1 to 5	6 to 10	11 to 20	21 to 30
Number of classes:				
First semester .....	5	4	13	0
Second semester .....	1	5	9	1

## FORESTRY.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
_____, associated professor .....	\$1,800	157	200
_____, instructor .....	1,400	248	200
_____, professor ( $\frac{1}{2}$ time) .....	1,300	.....	16
Total .....	4,500	405	416
Average .....	1,740	160	164

Classes.	Students in class.				
	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50
Number of classes:					
First semester .....	3	4	2	0	2
Second semester .....	3	2	0	4	0

## GEOLOGY AND MINING ENGINEERING.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
_____, professor and vice dean ( $\frac{1}{2}$ time) .....	\$3,300	85	139
_____, assistant professor .....	1,500	77	110
_____, associate professor .....	2,200	84	56
Total (2.94) .....	7,000	256	305
Average .....	2,380	87	91

Classes.	Students in class.		
	1 to 5	6 to 10	11 to 20
Number of classes:			
First semester .....	10	3	1
Second semester .....	8	2	1

## HISTORY.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
—, assistant professor.....	\$1,200	96	363
—, associate professor.....	2,250	93	252
Total.....	3,450	189	615
Average.....	1,725	95	306

Classes.	Students in class.				
	1 to 5	6 to 10	11 to 20	21 to 30	41 to 50
Number of classes:					
First semester.....	2	1	4	1	.....
Second semester.....		1	1	4	4

## SOILS.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
—, professor (half time).....	\$1,750	200	182
—, associate professor.....	2,100	413	436
—, assistant professor.....	1,600	464	191
—, instructor (half time).....	600	464	191
—, professor (half time).....	1,250	193	60
Total (34).....	7,300	1,734	1,060
Average.....	2,090	495	304

Classes.	Students in class								
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 60	61 to 70	81 to 90
Number of classes:									
First semester.....	2	2	3	2	5	1	2	.....	1
Second semester.....	11	4	5	3	1	1	.....	1	.....

## MODERN LANGUAGES.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
—, professor.....	\$2,250	114	63
—, instructor.....	1,200	292	208
—, instructor.....	1,200	210	175
—, instructor.....	1,200	278	228
—, instructor.....	1,200	247	275
—, instructor.....	1,200	260	331
Total.....	7,950	1,401	1,280
Average.....	1,325	234	313

## MODERN LANGUAGES—Continued.

Classes.	Students in class.				
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40
Number of classes:					
First semester.....	6	2	9	5	..... 1
Second semester.....	7	6	16	2	

## MUSIC.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
_____, associate professor (half time).....	\$800	116	274
_____, ..... .....	200	.....	62
Total.....	1,000	116	336
Average.....	.....	232	376

Classes.	Students in class.					
	1 to 5	6 to 10	21 to 30	31 to 40	41 to 50	51 to 60
Number of classes:						
First semester.....	.....	2	.....	1	1	1
Second semester.....	5	.....	2	1	1	2

## PSYCHOLOGY.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
_____, professor and chaplain.....	\$3,000	92	126
_____, assistant professor.....	1,500	464	297
Total.....	4,500	556	423
Average.....	2,250	278	211

Classes.	Students in class.					
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	51 to 60
Number of classes:						
First semester.....	.....	.....	2	1	2	1
Second semester.....	1	2	5	1	1	.....

## STRUCTURE DESIGN.

Instructor.	Salary.	Student clock hours.	
		First semester.	Second semester.
—, associate professor .....	\$2,500	115	443

Classes.	Students in class.			
	1 to 5	6 to 10	11 to 20	21 to 30
Number of classes:				
First semester .....	3	3	2	0
Second semester .....	5	2	0	2

## VETERINARY MEDICINE.

Instructors.	Salary.	Student clock hours.	
		First semester.	Second semester.
—, instructor .....	\$1,200	252	254
—, associate professor .....	2,000	317	299
—, professor .....	2,250	798	482
—, associate professor .....	1,900		184
—, instructor .....	1,200	576	279
—, instructor (two-fifths time) .....	400	120	40
—, professor .....	2,250	320	211
—, professor and vice dean .....	2,600	175	230
—, assistant professor .....	1,800	100	148
—, dean (five-eighths time) .....	3,000	57	
Total .....	18,600	2,715	2,127
Average .....	2,065	302	236

Classes.	Students in class.								
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	51 to 60	61 to 70	71 to 80	81 to 90
Number of classes:									
First semester .....	4	2	10	7	2	1	2	1	1
Second semester .....	3		13	8	2			1	

## INSTRUCTORS AND STUDENT CLOCK HOURS.

First semester:		
Number of instructors .....		189.6
Number of student clock hours .....		61,069
Average number of student clock hours .....		322
Second semester:		
Number of instructors .....		190.8
Number of student hours .....		58,354
Average number of student hours .....		305

## IOWA STATE TEACHERS COLLEGE.

## EDUCATION.

Instructors.	Salary.	Student clock hours.			
		Summer.	Fall.	Winter.	Spring.
....., professor .....	\$2,700	560	420	310	540
....., professor .....	1,400	940	620	780	505
....., professor .....	2,000	.....	390	465	345
....., professor .....	2,000	720	660	525	614
....., professor .....	1,300	.....	555	565	475
....., professor .....	1,900	380	640	650	405
....., professor .....	1,800	.....	460	365	515
Total (7) .....	13,100	2,600	3,745	3,690	3,399
Average .....	1,871	650	535	527	485

Classes.	Number of students.						
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 60
Number of classes .....	0	2	4	8	10	2	3

## TEACHING.

Instructors.	Salary.	Student clock hours.			
		Summer.	Fall.	Winter.	Spring.
.....	\$2,400	.....	11	.....	.....
.....	1,300	154	136	143	141
.....	1,300	154	136	147	158
.....	650	185	133	150	417
.....	1,200	154	111	140	155
.....	850	.....	265	270	397
.....	* 1,305	.....	.....	.....	.....
.....	1,100	.....	91	108	121
.....	1,100	154	141	130	162
.....	1,100	.....	20	30	54
.....	1,000	.....	140	95	96
.....	1,400	185	133	150	417
.....	1,400	.....	265	270	397
Total (12) .....	14,800	2,291	1,571	1,633	2,515
Average .....	1,233	327	143	148	229

## ENGLISH.

Instructors.	Salary.	Student clock hours.			
		Summer.	Fall.	Winter.	Spring.
....., professor .....	\$2,300	410	418	320	279
....., professor .....	1,500	365	367	600	492
....., professor .....	2,000	340	463	402	399
....., professor .....	1,700	440	310	490	350
.....	1,500	.....	277	366	364
.....	1,700	214	303	197	276
.....	1,300	.....	392	380	405
Total (7) .....	12,000	1,769	2,530	2,755	2,565
Average .....	1,714	354	361	393	366

\* Director.

\* Lectures and demonstration teaching.



## ENGLISH—Continued.

Classes.	Number in class.					
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50
Number of classes.....	1	4	9	6	2	1

## LATIN.

Instructors.	Salary.	Student clock hours.			
		Summer.	Fall.	Winter.	Spring.
.....	\$2,300	100	141	160	167
.....	1,400	120	190	205	146
Total (2).....	3,700	220	331	365	312
Average.....	1,850	110	165	183	156

Classes.	Number in class.		
	1 to 5	6 to 10	11 to 20
Number of classes.....	3	5	2

## GERMAN AND FRENCH.

Instructors.	Salary.	Student clock hours.			
		Summer.	Fall.	Winter.	Spring.
.....	\$2,300	325	375	365	345
.....	1,100	190	295	290	120
Total (2).....	3,400	515	670	655	465
Average.....	1,700	258	335	328	233

Classes.	Number in class.				
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40
Number of classes.....	2	2	1	2	1

## MATHEMATICS.

Instructor.	Salary.	Student clock hours.			
		Summer.	Fall.	Winter.	Spring.
.....	\$2,300	595	245	219	220

Classes.	Number in class.			
	1 to 5	6 to 10	11 to 20	21 to 30
Number of classes.....	1	1	1	1

## PHYSICS AND CHEMISTRY.

Instructors.	Salary.	Student clock hours.			
		Summer.	Fall.	Winter.	Spring.
.....	\$2,300	736	164	168	202
.....	1,500		503	377	273
.....		157			
.....	1,200	151	458	259	239
.....	1,300		140	84	245
Total (5) .....	6,300	1,044	1,265	888	959
Average .....	1,575	348	316	222	240

Classes.	Number in class.			
	1 to 5	6 to 10	11 to 20	21 to 30
Number of classes .....	4	1	5	3

## NATURAL SCIENCES.

Instructors.	Salary.	Student clock hours.			
		Summer.	Fall.	Winter.	Spring.
.....	\$2,100	217	567	253	1,162
.....	2,000	1,110	427	660	734
.....	1,900	746	448	287	511
.....	1,400	529	344	126	579
Total .....	7,400	2,602	1,786	1,326	2,986
Average .....	1,850	650	446	331	746

Classes.	Number in class.						
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 60
Number of classes .....	1	3	3	3	2	1	1

## HISTORY.

Instructors.	Salary.	Student clock hours.			
		Summer.	Fall.	Winter.	Spring.
.....	\$1,500	410	405	285	196
.....	1,400	390	475	500	610
Total .....	2,900	800	880	785	806
Average .....	1,450	400	440	393	403

Classes.	Number in class.					
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50
Number of classes .....	1	1	3	2	2	1

## GOVERNMENT.

Instructors.	Salary.	Student clock hours.			
		Summer.	Fall.	Winter.	Spring.
.....	\$2,200	766	287	180	295
Classes.		Number in class.			
		6 to 10	11 to 20	21 to 30	31 to 40
Number of classes.....		2	1	1	1

## ECONOMICS.

Instructors.	Salary.	Student clock hours.			
		Summer.	Fall.	Winter.	Spring.
.....	\$1,800	467	321	436	366
Classes.				Number in class.	
				11 to 20	21 to 30
Number of classes.....				2	2

## ART.

Instructors.	Salary.	Student clock hours.			
		Summer.	Fall.	Winter.	Spring.
.....	\$1,500	460	90	195	225
.....	1,400	375	175	330	350
.....	1,100	.....	270	535	330
.....	.....	640	.....	.....	.....
Total.....	4,000	1,475	535	1,060	905
Average.....	1,333	492	178	353	301

Classes.	Number in class.				
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40
Number of classes.....	1	4	3	3	1

## MUSIC.

Instructors.	Salary.	Student clock hours.			
		Summer.	Fall.	Winter.	Spring.
.....	\$2,300	770	626	240	402
.....	1,300	.....	334	224	68
.....	1,500	.....	146	473	239
Total.....	5,100	770	1,106	937	709
Average.....	1,700	770	368	312	236

Classes.	Students in class.						
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 60
Number of classes.....	1	2	3	2	1	1	1

## MANUAL ARTS.

Instructors.	Salary.	Student clock hours.			
		Summer.	Fall.	Winter.	Spring.
.....	\$2,300	215	135	193	304
.....	1,300	293	229	367	407
Total.....	3,600	508	364	560	711
Average.....	1,800	254	182	280	356

Classes.	Number in class.			
	1 to 5	6 to 10	11 to 20	21 to 30
Number of classes.....	1	4	3	1

## HOME ECONOMICS.

Instructors.	Salary.	Student clock hours.			
		Summer.	Fall.	Winter.	Spring.
.....	\$1,600	280	286	340	254
.....	900	300	220	254	261
.....	.....	336	290	.....	.....
.....	1,000	.....	187	299	200
Total.....	3,500	916	973	893	715
Average.....	1,166	305	243	298	238

Classes.	Number in class.				
	1 to 5	6 to 10	11 to 20	21 to 30	31 to 40
Number of classes.....	1	2	11	3	1

# APPEN

## ANALYSIS OF EXPENDITURES

	Training school.....	\$39,060.49
	Library.....	584.64
	Power house.....	16,243.40
	Dormitory.....	401.06
	Paving and walks.....	549.19
	Furnishing new building.....	2,077.04
		<hr/> 58,885.81
Construction and land, \$58,885.81.		
	Operating hospital....	1,644.33
	Fees refunded.....	5.00
		<hr/> 1,649.33
Special funds \$1,649.33		

Teachers College, exclusive of extension work, \$298,488.65.

Total operating expenses, \$237,953.51.....

Iowa State Teachers College, total expenditures, 1913-14, \$298,808.65.

Extension and industrial service, \$320. } Study center work (extension)..... \$320.00

# DIX G.

## AT IOWA STATE INSTITUTIONS.

Education, equipment and supplies, \$22, 707.06.	Library books and sup- plies.....	\$6,955.61
	Home economics.....	3,044.45
	Physics and chemistry.....	1,496.11
	Training school.....	2,070.79
	Natural science.....	1,987.24
	Music.....	2,659.65
	Orchestra.....	626.16
	General use of depart- ment.....	2,711.80
	Manual training.....	388.95
	Other departments....	766.30
		<hr/> 22,707.06

Instruction, \$139,984.63.....

Education.....	\$13,550.00
Teaching.....	19,214.01
English.....	17,500.00
Latin and Greek.....	3,700.00
German and French..	4,200.00
Mathematics.....	7,500.00
Physics and chemistry	8,560.00
Natural science.....	9,933.33
History.....	2,910.00
Government.....	3,300.00
Home economics.....	5,950.00
Economics.....	1,700.00
Music.....	7,220.00
Art.....	3,373.33
Commercial education.	2,820.00
Manual arts.....	4,500.00
Physical education....	5,930.00
Balance, salaries.....	188.97

122,049.64

Summer term..... 17,934.99

139,984.63

	Salaries.	Labor, equipment, supplies.
Administration.....	\$16,192.33	\$1,904.39
Library.....	7,760.81	.....
Commencement.....	.....	983.76
Superintendent build- ings and assistant..	3,609.96	.....
Janitors and grounds..	10,071.60	1,000.00
Engineer and firemen..	4,226.00	2,000.00
Fuel.....	.....	10,881.68
Repairs.....	1,800.00	10,349.24
Printing.....	.....	2,664.29
Advertising.....	.....	1,501.23
Telephone and tele- graph.....	.....	316.53
	<hr/> 43,660.70	<hr/> 31,601.12

General operating ex-  
penses, \$75,261.82.

Construction and land, \$86,013.52.	Training school.....	\$907.98
	Power house.....	2,415.09
	Dormitory.....	72,084.87
	Vocational building...	8,879.94
	Furnishing new building.....	938.29
	Paving and walks.....	1,087.35
		<hr/> 86,013.52

Special funds, \$1,779.93. Operating hospital.... 1,779.93

Teachers College, exclusive of extension work, \$349,495.82.

Total operating expenses, \$261,702.37 .....

Iowa State Teachers College, total expenditures 1914-15, \$357,598.33.

Extension and industrial service, \$8,102.51 } Study center work (extension)..... \$8,102.51

Education, equipment, and supplies, \$19, 745.08.	Library books and sup- plies.....	\$7,747.07
	Home economics.....	2,767.03
	Physics and chemistry.....	1,391.25
	Training school.....	1,441.61
	Natural science.....	1,210.66
	Music and orchestra....	1,143.46
	Manual training.....	677.61
	Physical education.....	617.47
	Rural education.....	1,043.03
	General use of depart- ment.....	1,341.71
	Other departments.....	364.18
		<u>19,745.08</u>

Instruction, \$158,581.00.....

Education.....	\$13,100.00
Teaching.....	19,698.75
English.....	18,125.00
Latin and Greek.....	3,700.00
German and French..	4,300.00
Mathematics.....	7,500.00
Physics and chemistry	9,975.00
Natural science.....	11,530.50
History.....	2,900.00
Government.....	3,600.00
Home economics.....	7,435.00
Economics.....	3,000.00
Music.....	8,280.00
Art.....	4,040.00
Commercial education.	2,900.00
Manual arts.....	4,620.00
Physical education....	6,550.00
Rural education.....	6,632.50
	<u>137,886.75</u>

Summer term.....	20,694.85
	<u>158,581.60</u>

	Salaries.	Labor, equipment, supplies.
Administration.....	\$19,385.00	\$2,961.32
Library.....	10,359.39	.....
Commencement.....	.....	981.55
Superintendent build- ings and assistant....	2,700.00	.....
Janitor and grounds...	10,302.00	1,000.00
Engineer and firemen.	4,267.00	2,000.00
Fuel.....	.....	13,017.08
Repairs.....	3,465.00	9,092.80
Printing.....	.....	2,808.23
Advertising.....	.....	663.30
Telephone and tele- graph.....	.....	373.02
	<u>50,478.39</u>	<u>32,897.30</u>

General operating ex-  
penses, \$83,375.66.



Construction and land, \$212,766.33.	Hospital.....	\$47,547.37
	Currier Hall.....	84,643.64
	Annual House.....	13,582.25
	Chemical building.....	7,931.55
	Storehouse.....	3,127.76
	Other buildings.....	1,688.93
	Equipping new build- ings.....	23,142.52
	Land purchases.....	12,395.59
	Tunnel.....	8,713.73
	Paving and walks.....	4,992.90
		<hr/> 212,766.33

Special funds, - \$82,- 275.94.	Hospital.....	\$50,235.84
	Homeopathic hos- pital.....	8,025.92
	Currier Hall.....	19,267.80
	Law loan books.....	168.40
	Storehouse.....	1,890.93
	Tuition refund.....	25.00
	Carr fund.....	2,330.00
	Gifford fund.....	182.05
	Lowden fund.....	150.00
	Bryan fund.....	10.00
		<hr/> 82,275.94

State University, ex-  
clusive of extension  
and service, \$933,-  
759.86.

Total operating expenses, \$638,717.59 .....

The University of Iowa,  
total expenditures,  
1913-14, \$944,068.75.

Extension and indus- trial service work, \$10,298.89.	Epidemiologist.....	\$3,276.98
	University extension.....	7,021.91
		<hr/> 10,298.89

Educational equipment and supplies, \$95,406.15.	Library books and supplies.....	\$21,006.73
	College of arts .....	22,354.73
	College applied science.....	12,527.92
	College of law.....	500.12
	College of medicine.....	11,232.93
	Hospital deficit.....	11,408.17
	College of homeopathic medicine.....	77.61
	Homeopathic Hospital deficit.....	1,090.50
	College of dentistry....	11,886.19
	College of pharmacy....	1,913.05
	Graduate college.....	371.03
	Fine arts.....	891.70
	Summer session.....	145.47
		<hr/>
		95,406.15

Instruction, \$364,413.08.....

College of arts .....	\$183,008.00
College of applied science.....	34,880.00
College of law.....	23,975.00
College of medicine....	58,769.51
College of homeopathic medicine.....	5,300.00
College of dentistry....	25,100.00
College of pharmacy....	5,600.00
College of fine arts....	6,200.00
Music, tuitions.....	6,412.22
Graduate college.....	5,520.00
	<hr/>
	354,764.73
Summer term.....	9,648.35
	<hr/>
	364,413.08

	Salaries.	Labor, equipment, supplies.
Administration.....	\$22,915.58	\$4,754.82
Library.....	7,123.32	.....
Commencement and general lectures....	2,321.35	.....
Superintendent building, assistant.....	6,332.59	82.98
Janitors.....	21,089.74	3,247.95
Engineer and firemen.	9,158.05	1,329.99
Fuel.....	.....	31,712.77
Repairs.....	.....	30,033.99
Printing.....	.....	5,059.38
Advertising.....	.....	2,569.84
Telephone and telegraph.....	.....	1,184.71
Gas, water, electricity, ice.....	.....	6,405.69
Postage.....	.....	3,634.00
Miscellaneous.....	.....	16,214.90
Alumni secretary and bulletin.....	2,720.00	1,026.71
	<hr/>	<hr/>
	71,640.63	107,257.73

General operating expenses, \$178,898.36.

## STATE HIGHER INSTITUTIONS OF IOWA.

Hospital.....	\$62,890.79
Nurses' home.....	48,508.39
Men's gymnasium.....	29,273.85
Women's gymnasium.....	40,389.84
Equipment new building.....	29,956.18
Other building equipment.....	4,035.27
Other buildings.....	2,430.67
Paving and walks.....	5,192.51
Tunnel.....	1,372.12
Land.....	14,112.66
	<hr/> 238,132.28

Construction and land,  
\$238,132.28.

Special funds, \$97,725.57.

Hospital.....	\$50,114.43
Homeopathic Hospital.....	9,022.45
Currier Hall.....	31,698.25
Law loan book.....	263.49
Storeroom.....	3,730.70
Tuition refund.....	170.25
Carr fund.....	2,485.00
Gifford fund.....	71.00
Lowden fund.....	150.00
Bryan fund.....	20.00
	<hr/> 97,725.57

State University, exclusive of extension and service, \$994,471.19.

Total operating expenses, \$658,613.34.....

The University of Iowa,  
total expenditures,  
1914-15, \$1,017,805.72.

Extension and industrial service work, \$23,334.53.	Epidemiologist.....	\$5,904.08
	University extension.....	17,430.50
		<hr/> 23,334.53

Educational equipment and supplies, \$100,532.91.	Library books and supplies.....	\$18,776.13
	College of Arts.....	21,671.78
	College of Applied Science.....	13,280.65
	College of Law.....	1,162.08
	College of Medicine.....	12,593.85
	Hospital deficit.....	12,868.35
	College of Homeopathic Medicine.....	126.49
	Homeopathic Hospital deficit.....	1,787.57
	College of Dentistry.....	13,748.42
	College of Pharmacy.....	2,003.95
	Graduate College.....	384.53
	Fine Arts.....	1,304.47
	Summer session.....	825.64
		<hr/>
		100,532.91

Instruction, \$388,233.74.....

College of Arts.....	\$193,528.28
College of Applied Science.....	37,821.30
College of Law.....	23,350.00
College of Medicine.....	63,240.18
College of Homeopathic Medicine.....	5,300.00
College of Dentistry.....	27,059.99
College of Pharmacy.....	6,615.00
College of Fine Arts.....	4,545.00
Music, tuitions.....	9,555.75
Graduate College.....	6,800.00
	<hr/>
Summer term.....	377,815.50
	<hr/>
	10,418.24
	<hr/>
	388,233.74

General operating expenses, \$160,846.69.

	Salaries.	Labor, equipment, supplies.
Administration.....	\$25,371.73	\$6,415.75
Library.....	7,380.00	.....
Commencement and general lectures.....	2,379.19	.....
Superintendent buildings, assistant.....	6,392.66	124.10
Janitors.....	22,896.12	2,721.96
Engineers and firemen.....	7,351.32	1,309.59
Fuel.....	.....	25,841.42
Repairs.....	.....	30,257.45
Printing.....	.....	4,181.28
Advertising.....	.....	2,511.62
Telephone and telegraph.....	.....	1,287.11
Gas, water, electricity, ice.....	.....	4,334.93
Postage.....	.....	3,735.00
Miscellaneous.....	.....	11,973.46
Alumni secretary and bulletin.....	2,840.00	542.00
	<hr/>	<hr/>
	74,611.02	95,235.67

	Gymnasium.....	\$3,040.71
	Chemistry building ...	172,282.28
	"Emergency" .....	4,040.42
	Mechanical engineering building.....	40,051.96
	Transportation build- ing.....	49,801.69
(Construction and land, \$317,978.63.	Heating plant.....	18,941.60
	Margaret Hall Annex..	5,617.00
	Sewage plant.....	4,072.74
	Other buildings.....	6,007.02
	Improvement of grounds.....	14,123.21
		<hr/> 317,978.63
	Agricultural engineer- ing.....	\$861.68
	Dairy.....	28,995.23
	Farms.....	19,238.33
	Horticulture.....	2,735.09
	Veterinary hospital....	2,281.39
	Other departments....	8,948.18
	Operating hospital....	9,886.60
	Operating storeroom....	10,603.89
	Women's dormitory....	4,277.05
	School fund.....	1,362.50
	Fees refunded.....	6,656.61
		<hr/> 95,846.55
(State College, exclusive of extension and serv- ice, \$1,037,833.47.		
	Total operating expenses, \$624,008.29.....	

	(Serum plant and equip- ment.....	\$21,750.77
(Construction, \$42,874.10)	Land purchased.....	21,123.33
		<hr/> 42,874.10
	Agricultural experi- ment station.....	\$15,028.11
	Engineering experi- ment station.....	1,582.64
	Agricultural extension. Serum fund.....	761.43
		<hr/> 125,072.41
(Extension and indus- trial service work, \$424,860.78.		
	Special funds, \$142,444.50,	
	Operating expenses, \$239,532.09.....	

**Iowa State College of  
Agriculture and Me-  
chanic Arts, total  
expenditures, 1913-14,  
\$1,461,684.25.**

Educational equipment and supplies, \$144,974.02.	Library books and supplies.....	\$6,958.96	
	Agricultural division..	59,241.35	
	Agricultural engineering.....	4,529.02	
	Engineering division..	25,715.44	
	Home economics.....	20,883.08	
	Veterinary medicine..	8,008.62	
	Industrial science.....	8,120.64	
	Noncollegiate.....	14,303.81	
	Veterinary practical course.....	588.56	
	Summer term.....	1,624.54	
		<u>144,974.02</u>	
Instruction, \$313,158.01.....	Agriculture.....		\$106,006.17
	Agricultural engineering.....		12,420.99
	Engineering.....		78,627.77
	Home economics.....		52,699.24
	Veterinary medicine..		16,854.73
	Industrial science.....		7,547.22
	Noncollegiate.....		31,647.95
			<u>305,804.07</u>
	Summer session.....		7,353.94
			<u>313,158.01</u>
General operating expenses, \$165,876.26.		Labor, equipment, supplies.	
	Administration.....	\$27,350.00	\$8,282.58
	Library.....	6,712.43	
	Commencement and general lectures.....		2,053.23
	Janitors.....	14,726.75	1,641.26
	Engineers and firemen.	9,786.78	10,113.54
	Fuel.....		36,318.37
	Repairs and contingent.....		39,034.51
	Printing and advertising.....		5,495.33
	Care grounds.....	989.63	3,371.85
		<u>59,565.59</u>	<u>108,310.67</u>
Experimental work, \$145,544.09.	Agriculture.....	\$51,173.46	\$62,990.32
	Engineering.....	6,195.71	7,067.07
	Good roads.....	4,166.48	4,962.36
	Veterinary.....	2,328.43	6,660.26
		<u>63,864.08</u>	<u>81,680.01</u>
Extension work, \$93,988.	Agriculture.....	\$43,673.51	\$29,770.12
	Engineering.....	8,435.86	5,964.91
	Hog cholera serum.....	6,143.60	
		<u>58,252.97</u>	<u>35,735.03</u>

Iowa State College of  
Agriculture and Me-  
chanic Arts, total  
expenditures, 1914-15,  
\$1,599,430.41.

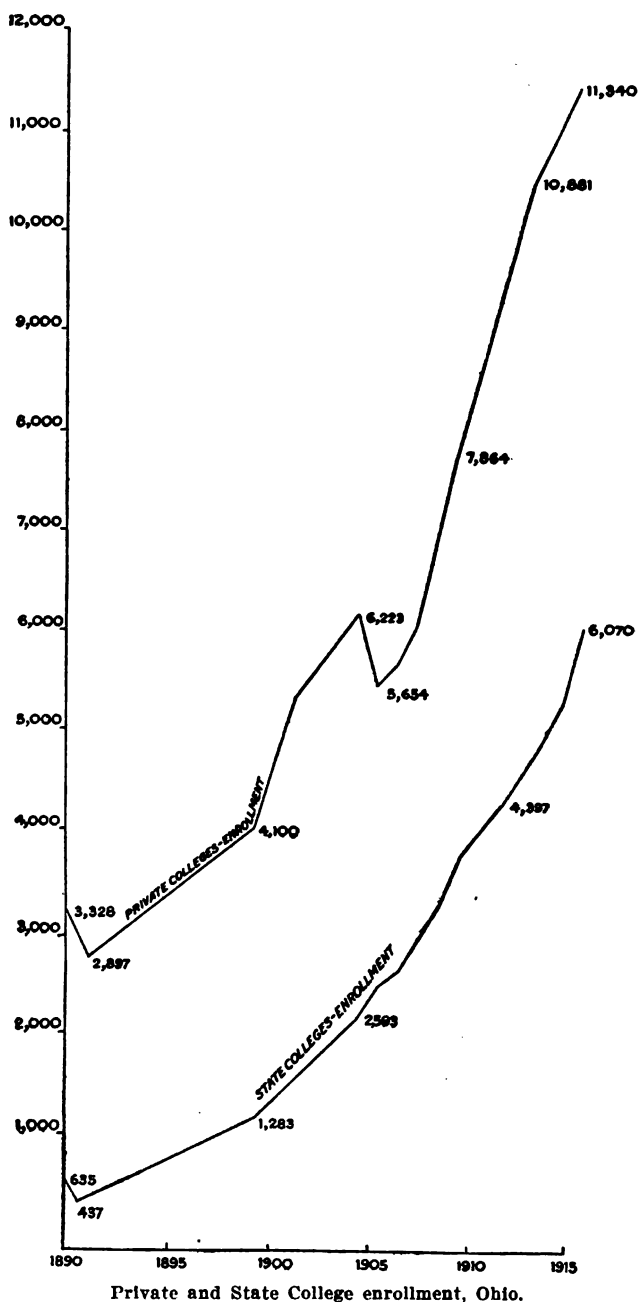
		Chemical building . . .	\$128,892.22
		Women's dormitory . . .	52,096.52
		Plant industry build- ing . . . . .	57,088.12
		Steam and gas labora- tory . . . . .	12,989.84
	Construction and land, \$338,336.52.	Transportation build- ing . . . . .	22,247.24
		Central heating plant . .	32,569.47
		Dormitory annex . . . .	10,494.86
		Other buildings . . . . .	4,508.94
		Grounds, improvement . .	16,498.30
			338,336.52
State college, exclusive of extension and service, \$1,160,081.67.	Total operating ex- penses, \$687,144.73. }		
		Agricultural education . .	\$2,418.86
		Dairy . . . . .	38,500.71
		Farms . . . . .	23,918.81
		Horticulture . . . . .	3,594.07
	Special funds, \$124,600.42.	Veterinary hospital . . .	2,333.29
		Other department sales .	14,355.34
		Hospital . . . . .	10,168.28
		Storeroom . . . . .	10,383.88
		Dormitories . . . . .	9,995.31
		Scholarships . . . . .	1,924.96
		Fees refunded . . . . .	6,406.91
			124,600.42
	Construction and land, \$14,778.21.	Land purchased . . . . .	\$10,875.09
		Drainage and fence . . .	3,903.21
			14,778.21
Extension and indus- trial service work, \$449,348.74.	Operating expenses, \$294,228.82.		
		Agricultural experi- ment station . . . . .	\$19,815.91
	Special funds, \$140,341.71	Engineering experi- ment station . . . . .	1,270.23
		Veterinary investiga- tion . . . . .	225.67
		Agricultural extension . .	1,038.48
		Engineering extension . .	1,319.76
		Serum fund . . . . .	116,671.68
			140,341.71

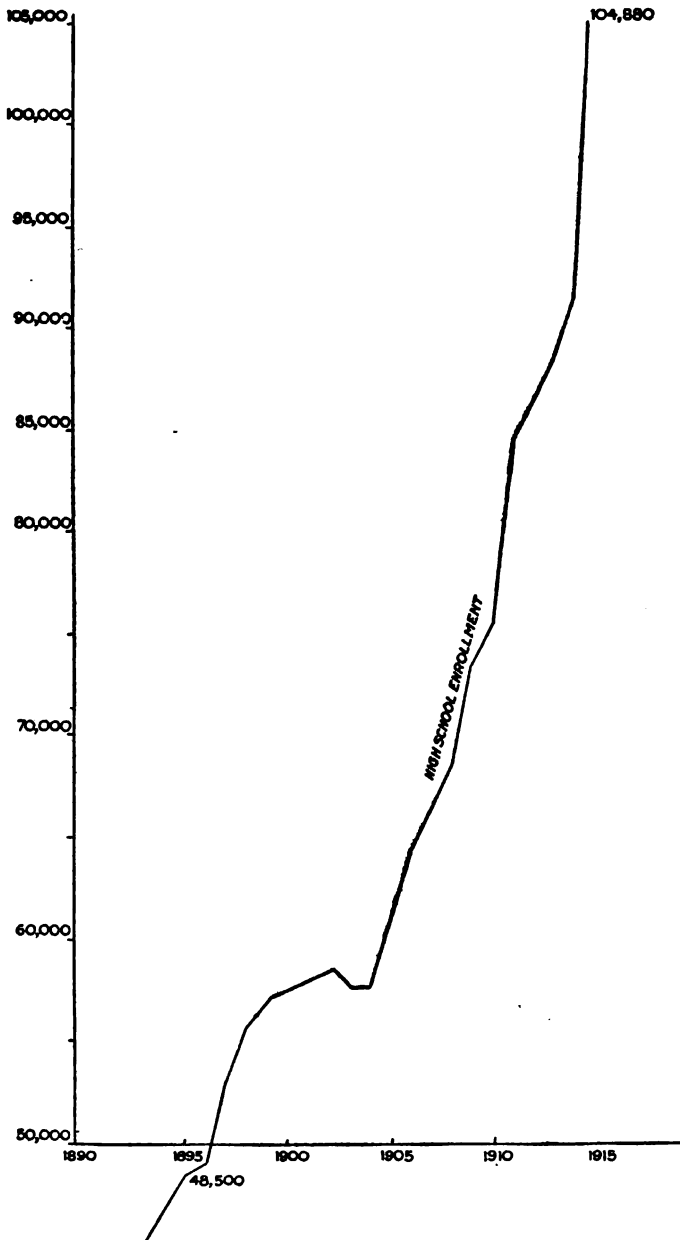
Educational equipment and supplies, \$172,218.11.	Library books, supplies.	\$7,844.52			
	Agricultural division.	63,207.74			
	Agricultural engineering.	5,095.51			
	Engineering.	30,523.53			
	Home economics.	25,868.10			
	Veterinary medicine.	7,172.51			
	Industrial science.	3,157.83			
	Noncollege.	24,666.87			
	Veterinary practice course.	1,588.77			
	Summer session.	3,092.73			
		172,218.11			
Instruction, \$362,291.87.					
General operating expenses, \$152,634.75.		Salaries.	Labor, equipment, supplies.		
	Administration.	\$28,201.33	\$9,347.00		
	Library.	7,283.32			
	Sunday and general lectures.		2,635.98		
	Janitors.	16,927.40	2,196.16		
	Engineers and firemen.	9,682.09	10,414.53		
	Fuel.		30,227.47		
	Repairs and construction.		25,661.22		
	Advertising.		5,112.43		
	Care grounds.	1,701.51	3,244.31		
		63,795.65	88,839.10		
Experimental work, \$163,883.32.	Agriculture.	\$60,895.69	\$68,727.78		
	Engineering.	8,838.86	6,046.27		
	Good roads.	5,670.25	6,780.35		
	Veterinary.	1,432.58	5,491.54		
		76,837.38	87,045.94		
Extension work, \$130,245.50.	Agriculture.	\$55,753.43	\$41,913.08		
	Engineering.	10,558.50	6,753.58		
	Hog cholera serum.	7,233.32	8,133.59		
		73,545.25	56,800.25		
	Agriculture.			\$122,918.01	
	Agricultural engineering.			14,137.25	
	Engineering.			90,735.02	
	Home economics.			64,060.63	
	Veterinary medicine.			19,922.39	
	Industrial science.			8,773.29	
	Noncollegiate.			31,747.23	
				352,293.82	
				Summer term.	9,998.05
					362,291.87



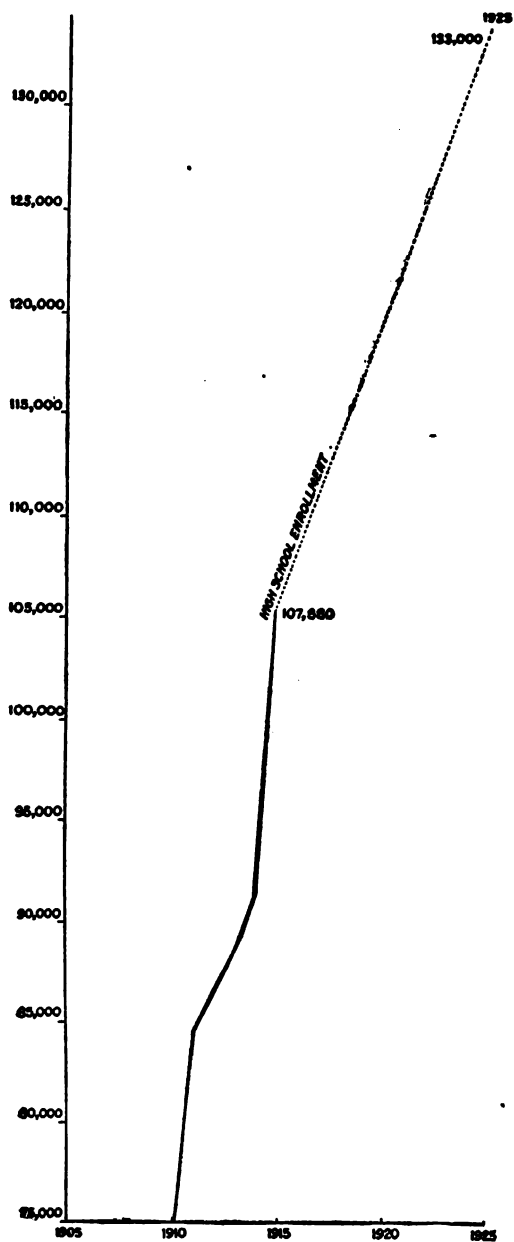
# APPENDIX H.

## DIAGRAMS AND OUTLINE MAPS.

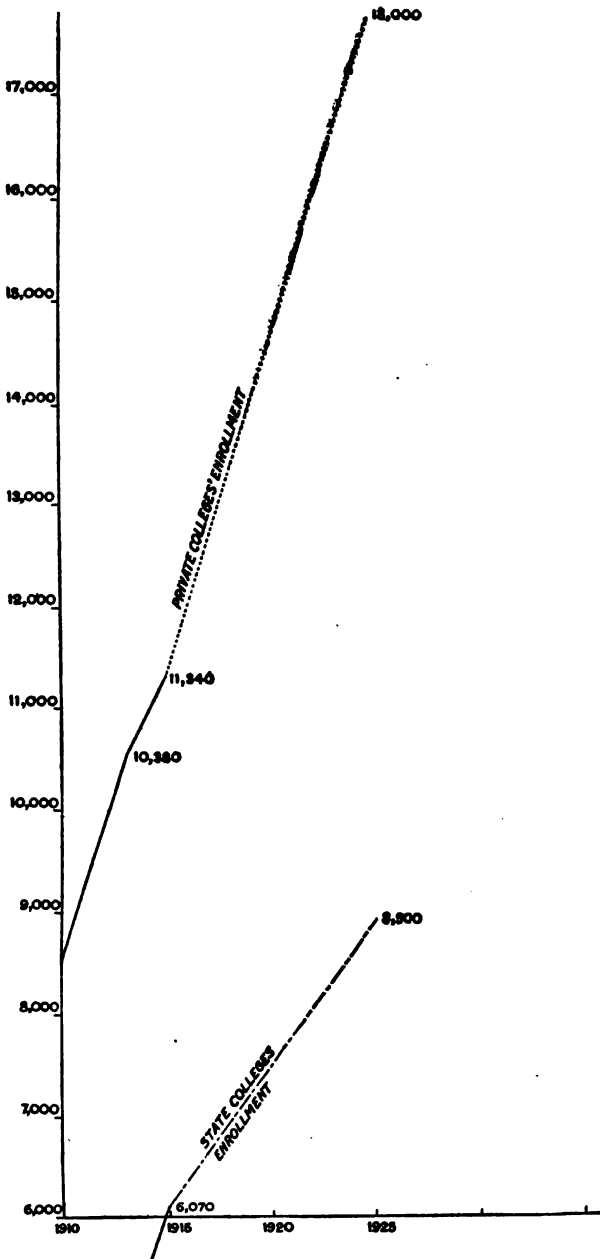




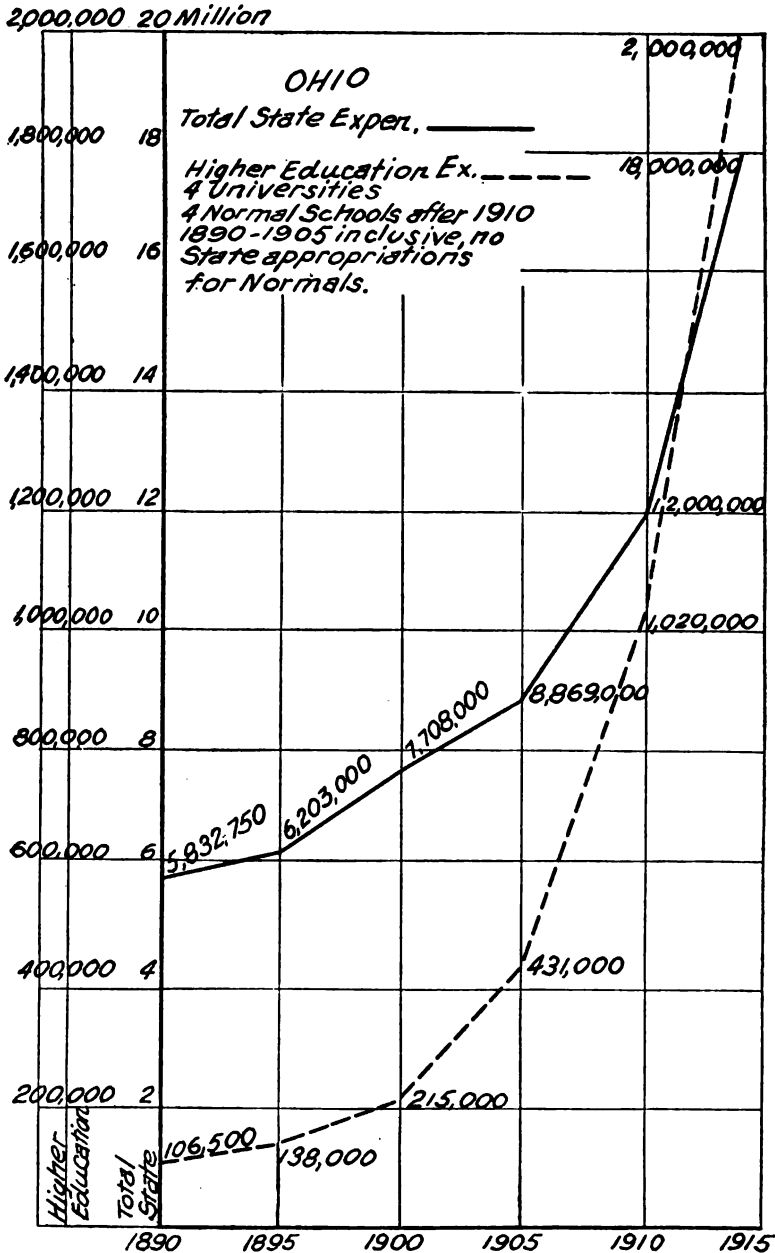
Growth of high-school enrollment, Ohio, 1890-1915.



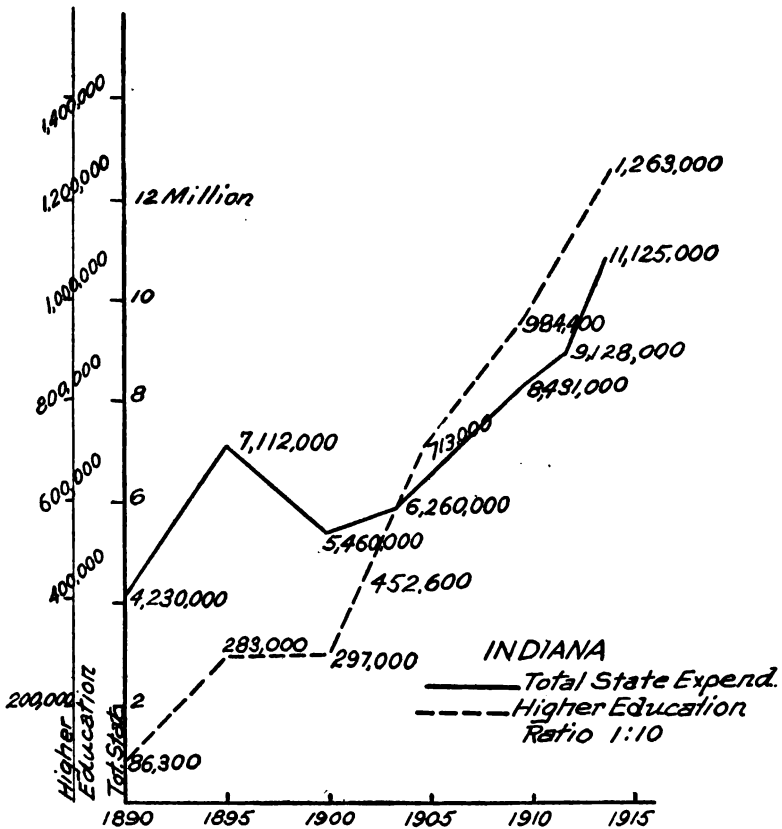
Forecast of high-school enrollment in Ohio.



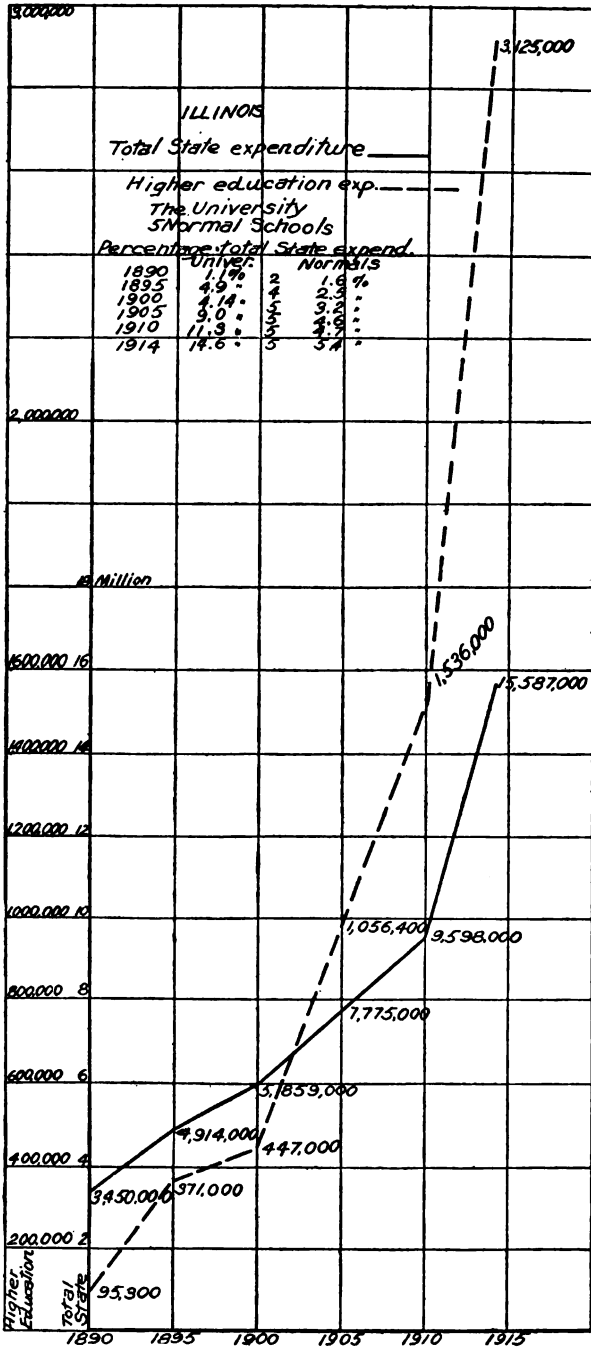
Forecast of private and State College enrollment in Ohio.



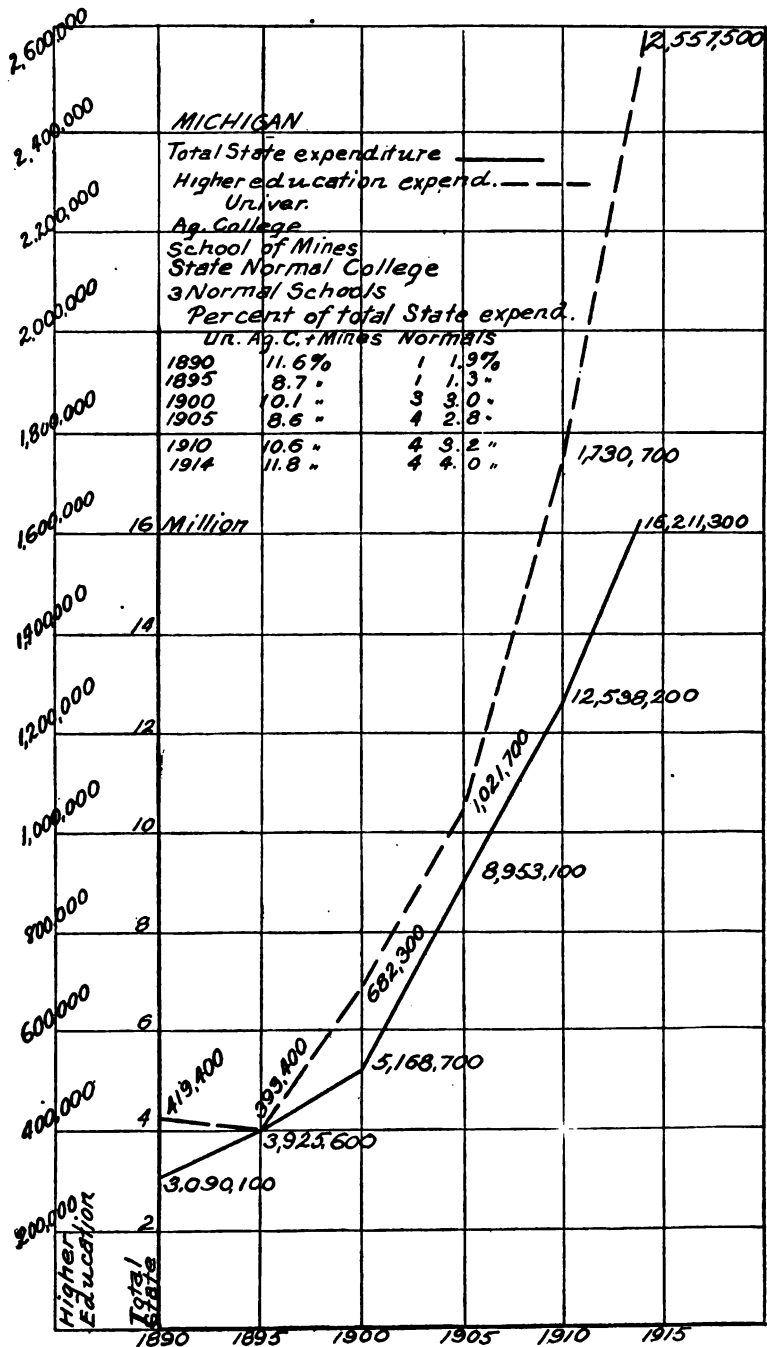
State expenditures for higher education in Ohio compared with total State expenditures.



State expenditures for higher education in Indiana compared with total State expenditures.

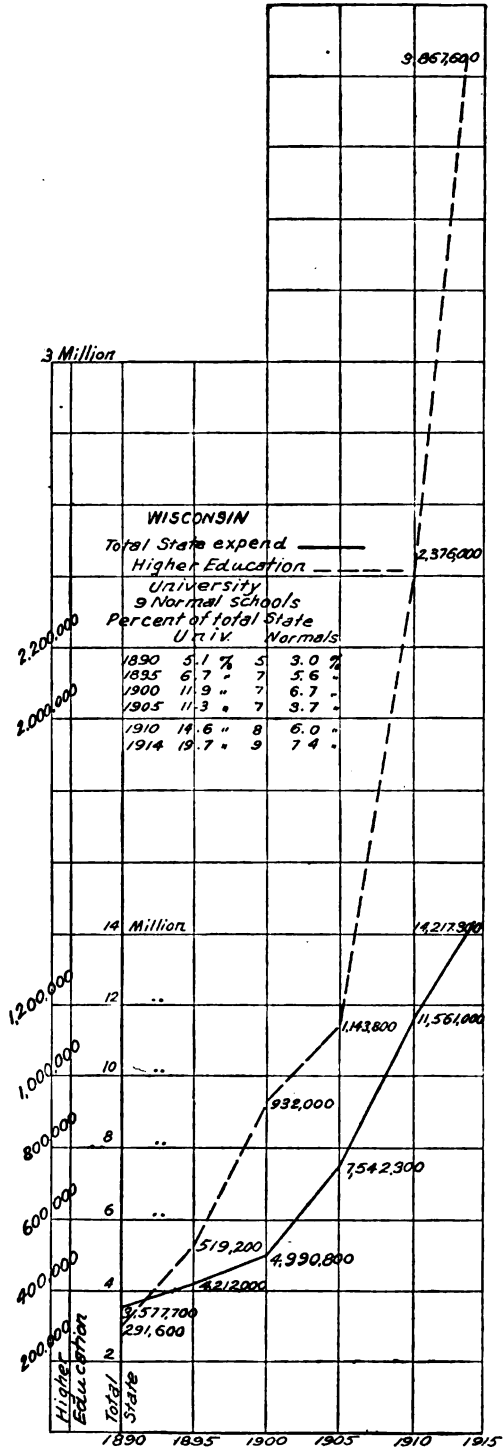


State expenditures for higher education in Illinois compared with total State expenditures.

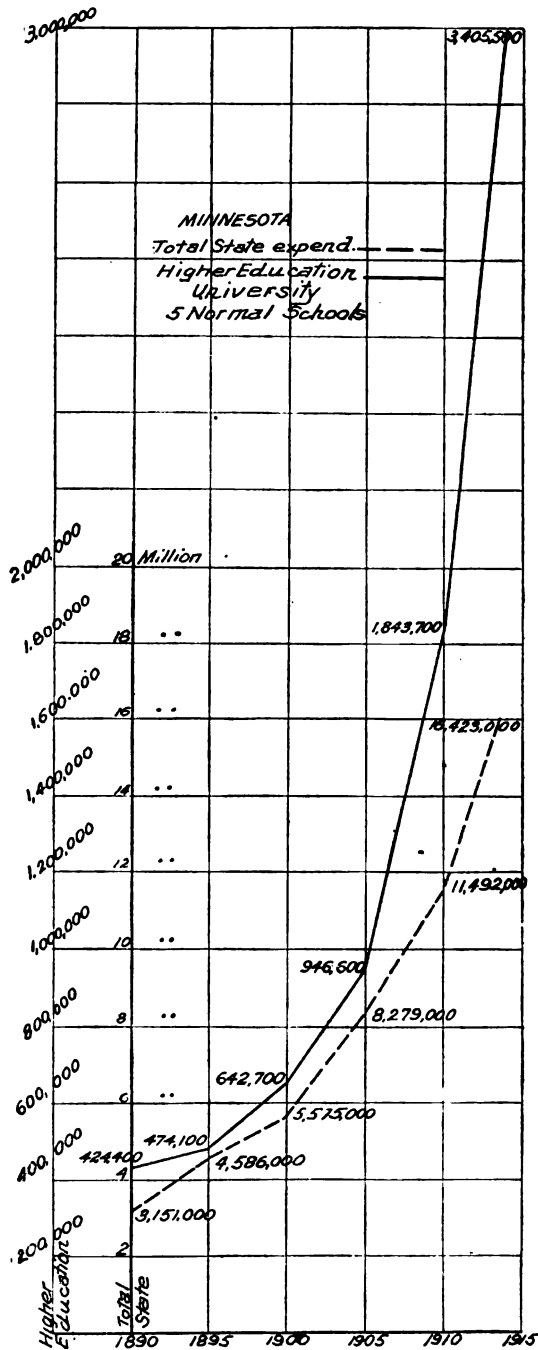


State expenditures for higher education in Michigan compared with total State expenditures.

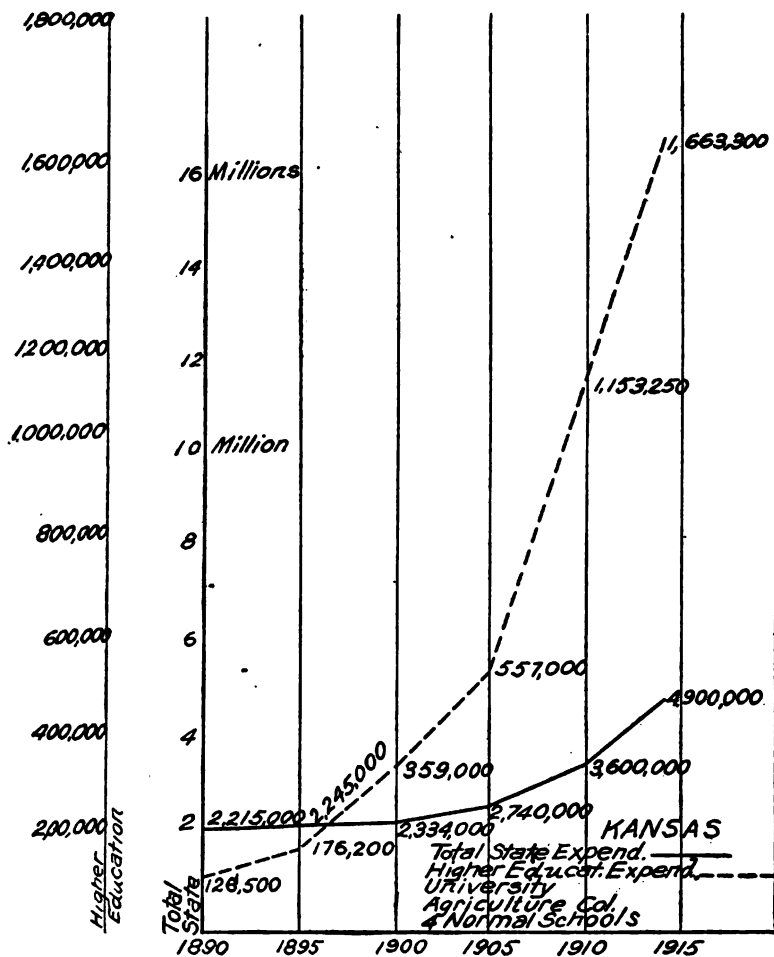




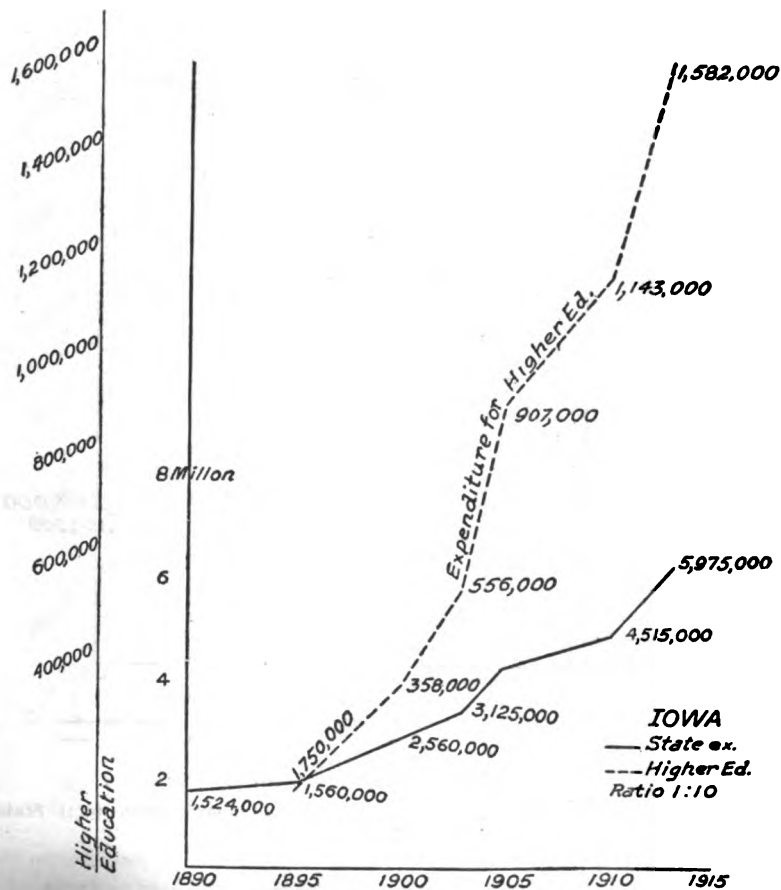
State expenditures for higher education in Wisconsin compared with total State expenditures.



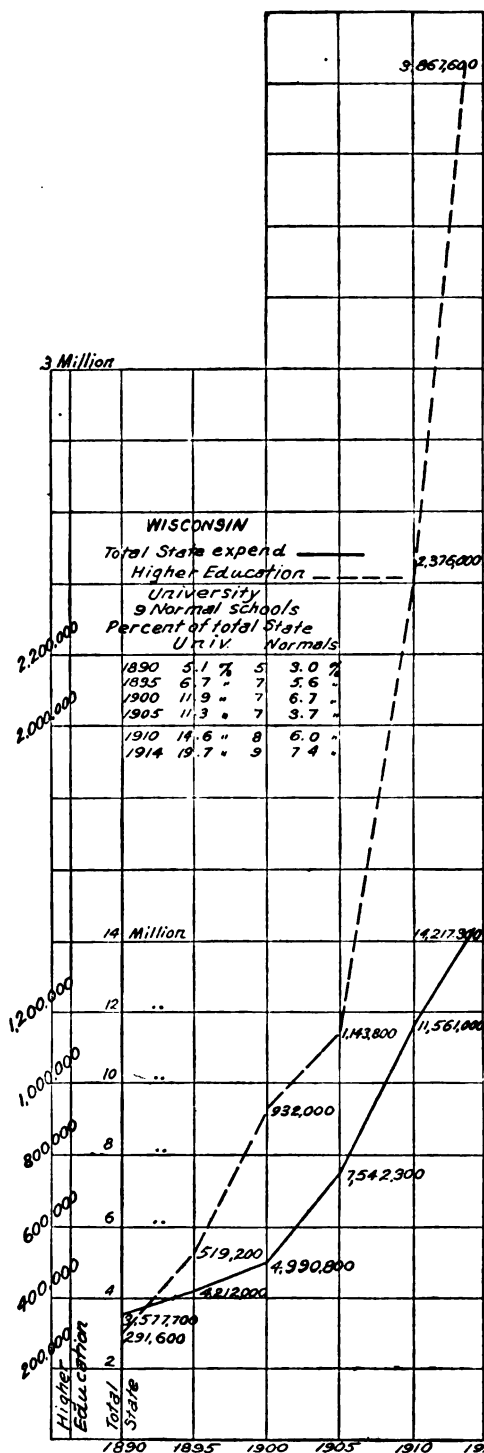
State expenditures for higher education in Minnesota compared with total State expenditures.



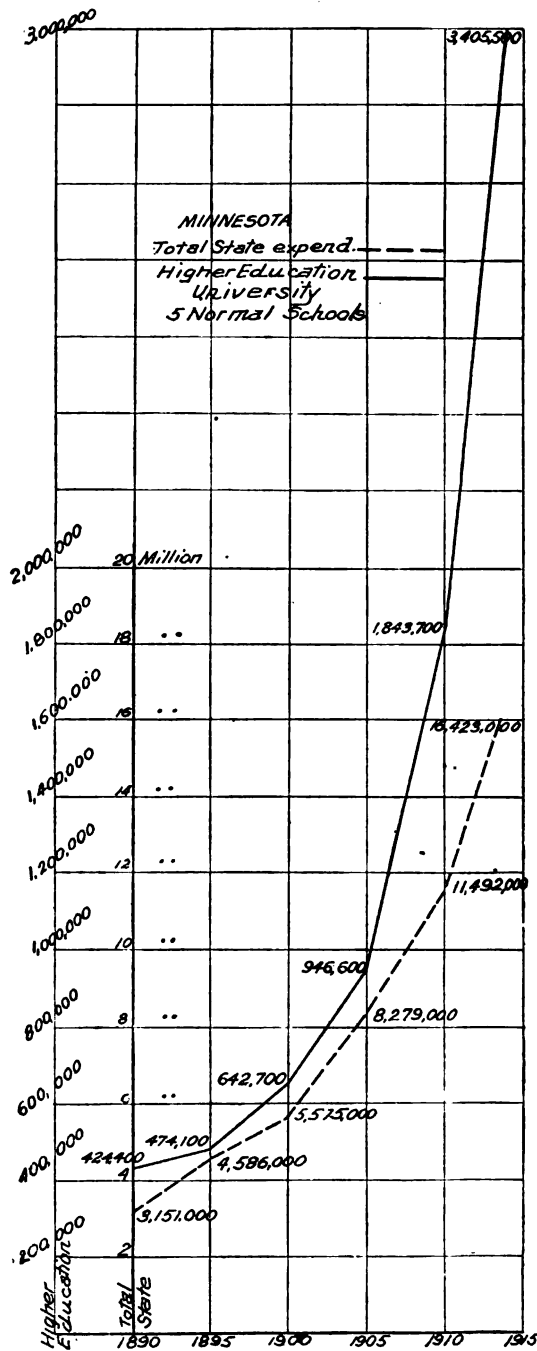
State expenditures for higher education in Kansas compared with total State expenditures.



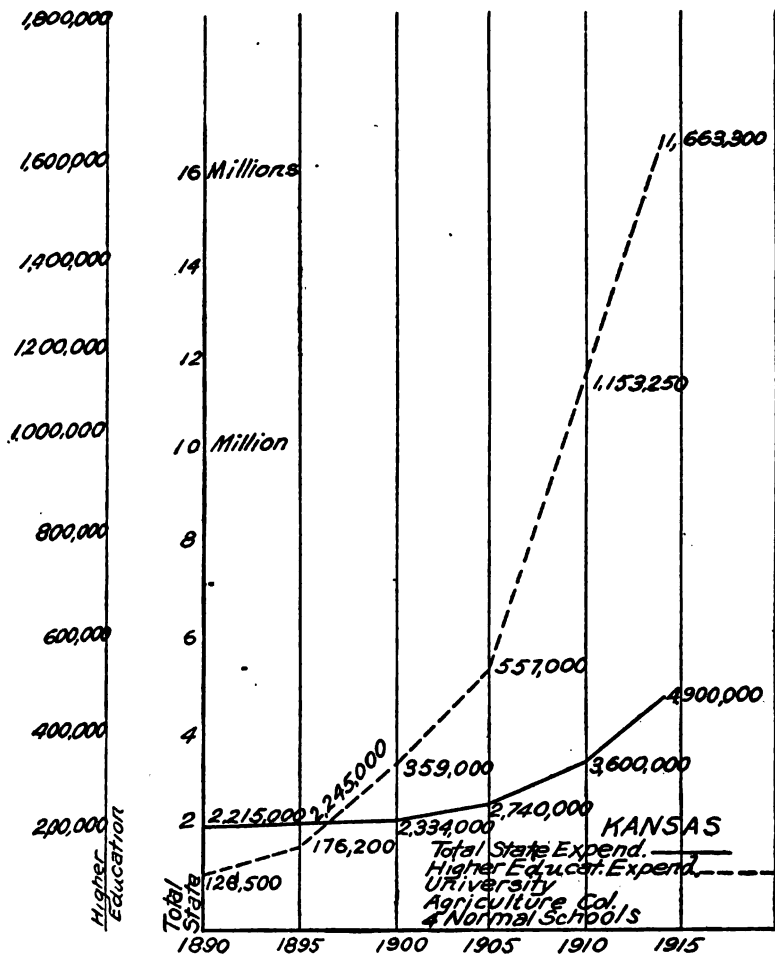
State expenditures for higher education in Iowa compared with total State expenditures.



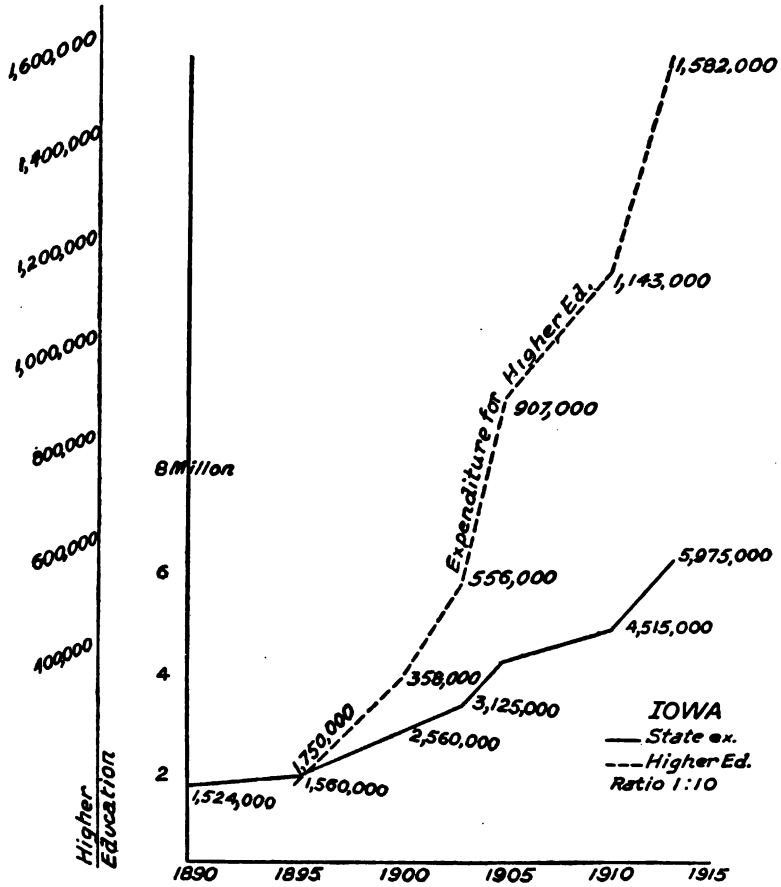
State expenditures for higher education in Wisconsin compared with total State expenditures.



State expenditures for higher education in Minnesota compared with total State expenditures.

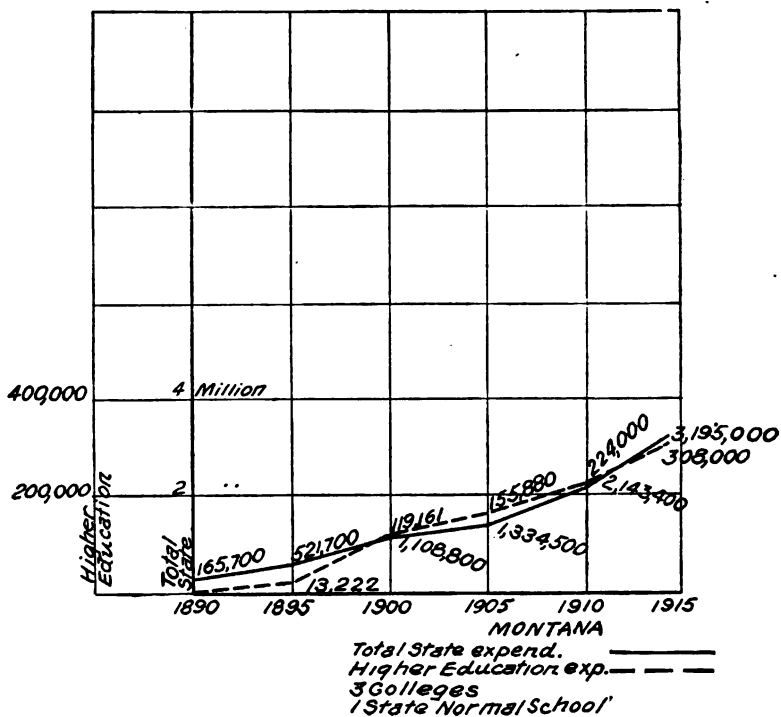


State expenditures for higher education in Kansas compared with total State expenditures.

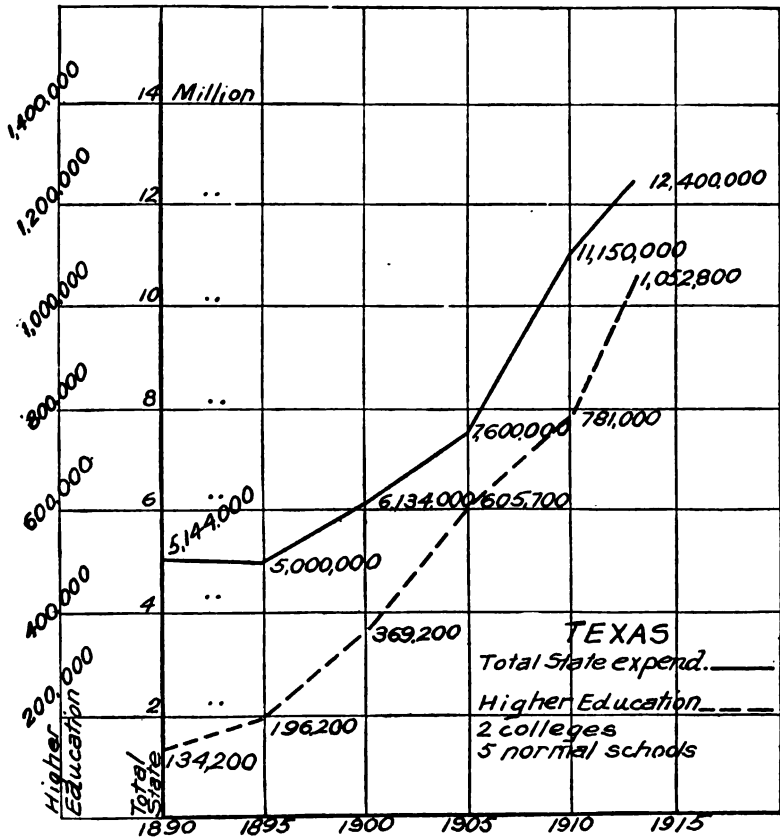


State expenditures for higher education in Iowa compared with total State expenditures.

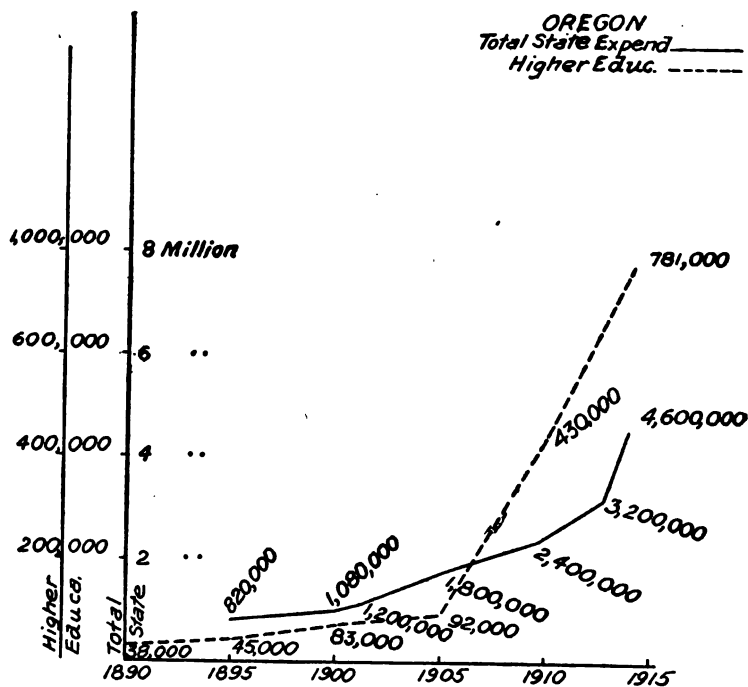




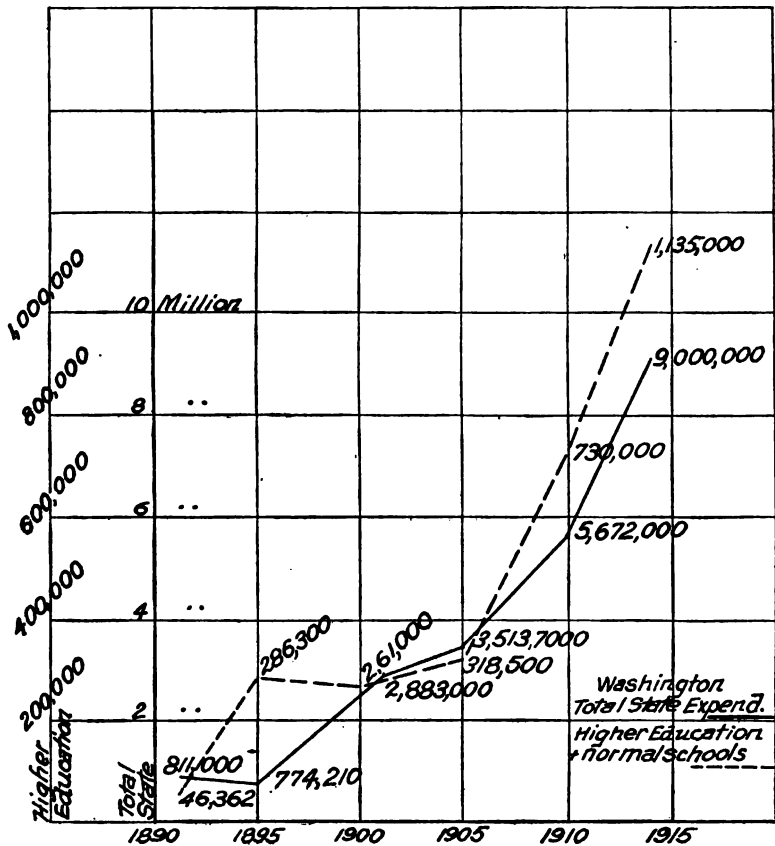
State expenditures for higher education in Montana compared with total State expenditures.



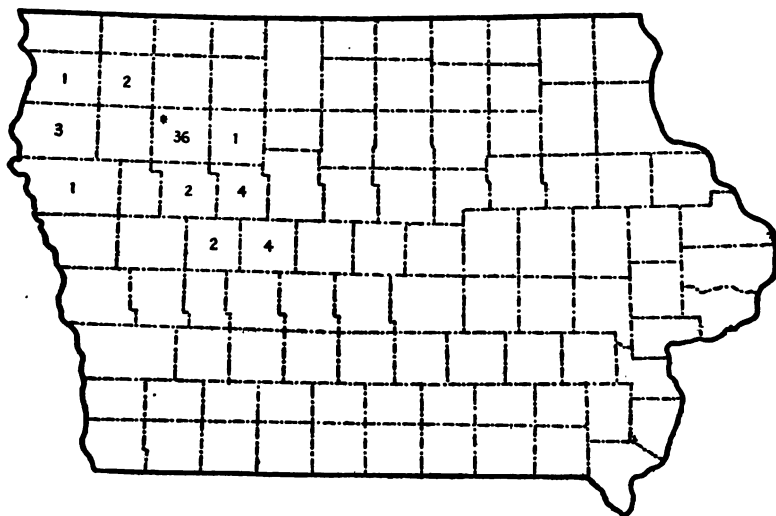
State expenditures for higher education in Texas compared with total State expenditures.  
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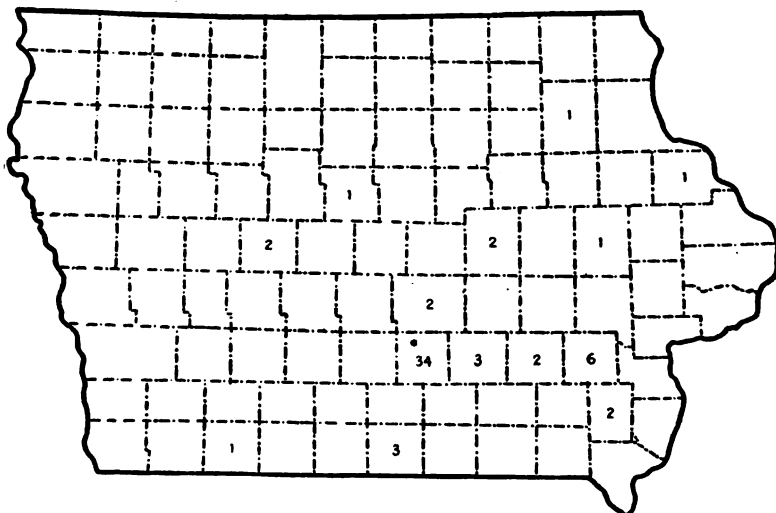
State expenditures for higher education in Oregon compared with total State expenditures.



State expenditures for higher education in Washington compared with total State expenditures.



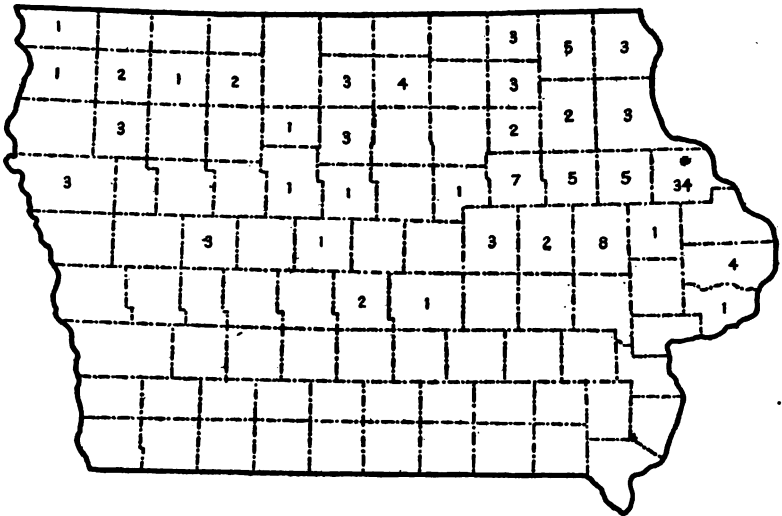
Buena Vista College, Storm Lake, Iowa. Distribution of students by counties.  
From outside the State, 3.



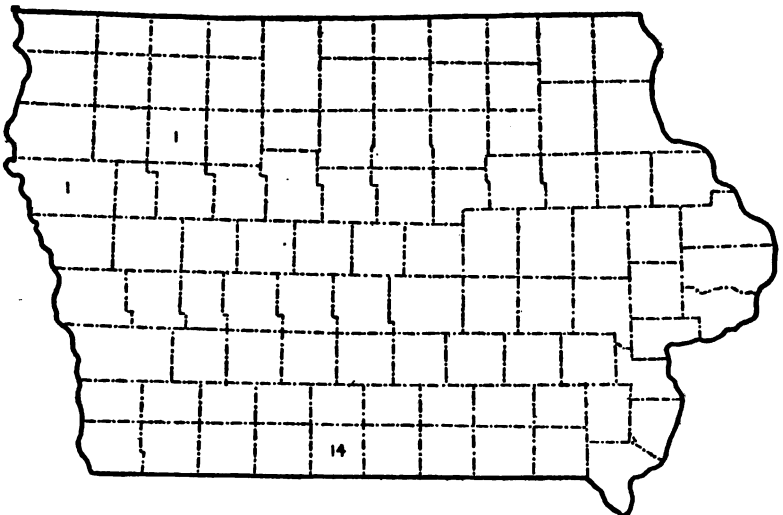
Central College, Pella, Iowa. Distribution of students by counties.





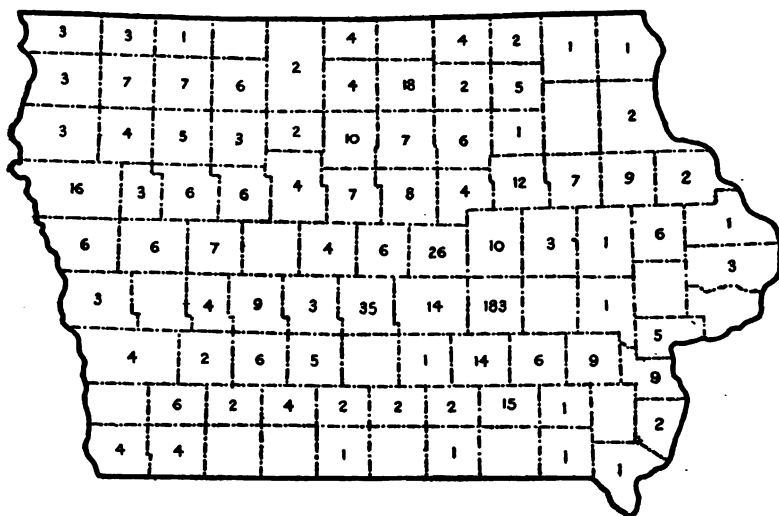


Dubuque College, Dubuque, Iowa. Distribution of students by counties.  
Enrollment from outside the State, 31.

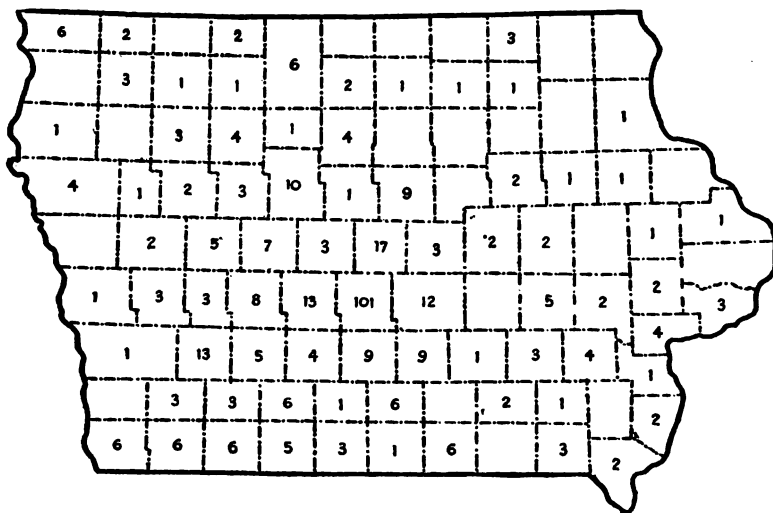


Graceland College, Lamoni, Iowa. Distribution of college students by counties.  
From outside the State, 25.

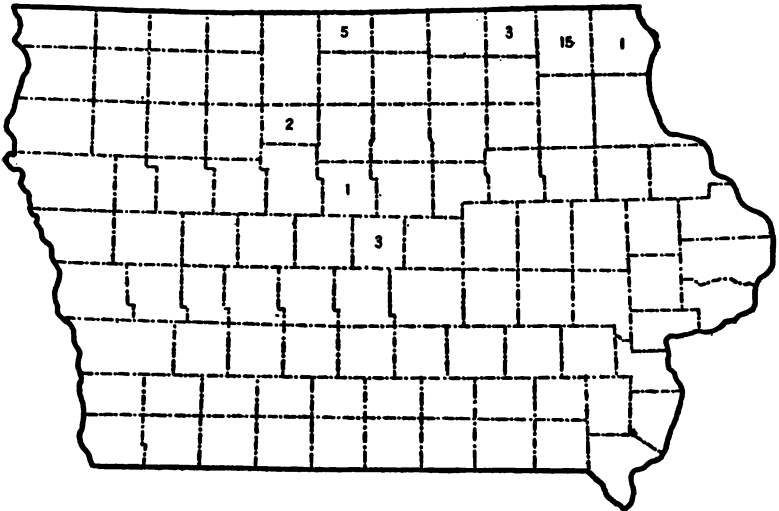




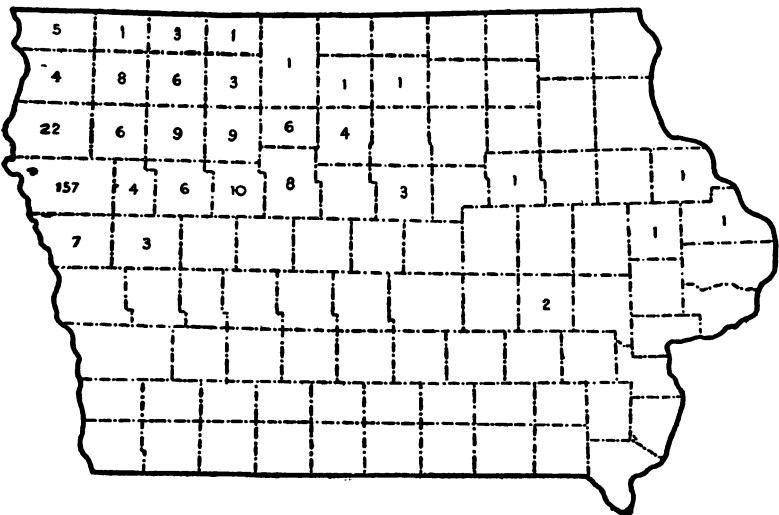
Grinnell College, Grinnell, Iowa. Distribution of students by counties.  
From 19 other States, 57; from foreign countries, 3.



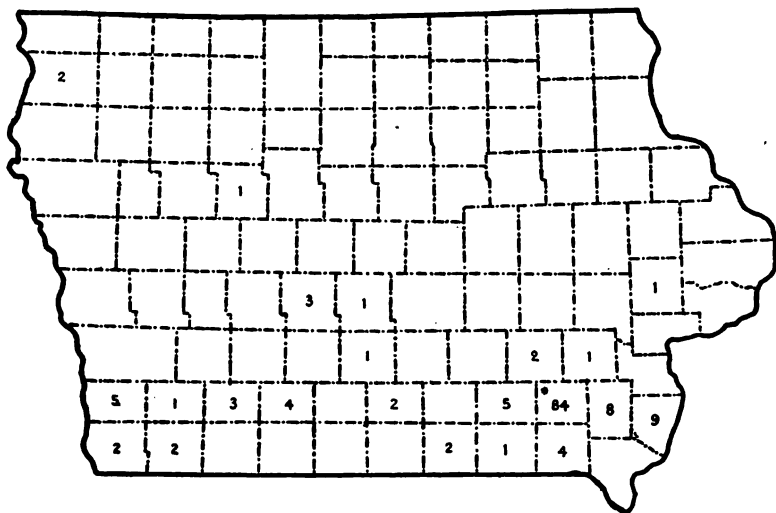
Highland Park College, Des Moines, Iowa. Distribution of college students by counties,  
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From 31 other States, 149; from foreign countries, 19.



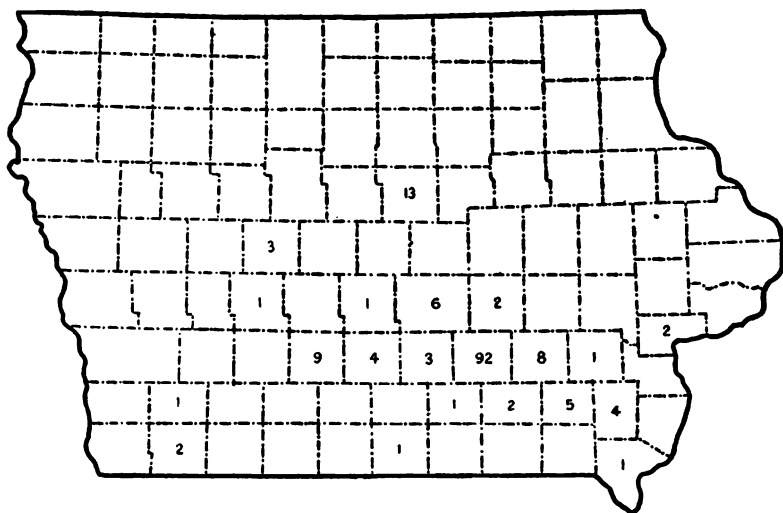
Luther College, Decorah, Iowa (Collegiate Department). Distribution of students by counties, 1915-16.  
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Morningside College, Sioux City, Iowa. Distribution of students by counties.  
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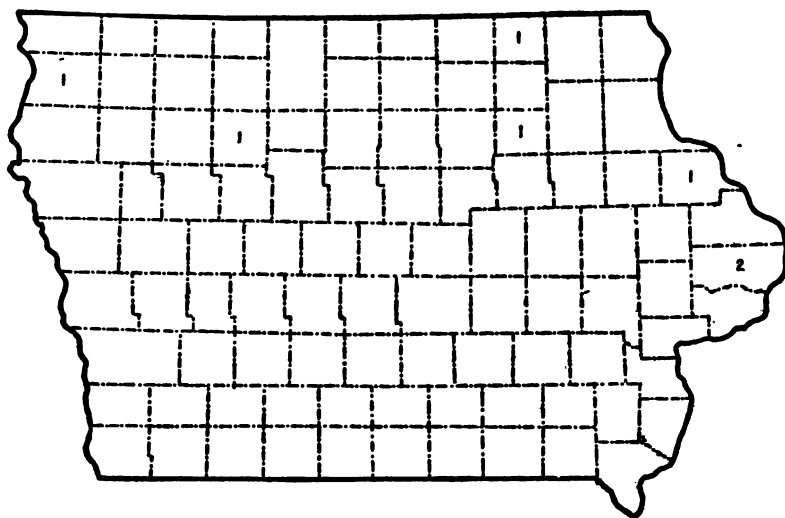


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DEPARTMENT OF THE INTERIOR  
BUREAU OF EDUCATION

BULLETIN, 1916, No. 20

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ACCREDITED SECONDARY SCHOOLS  
IN THE UNITED STATES

BY

SAMUEL PAUL CAPEN  
SPECIALIST IN HIGHER EDUCATION.  
BUREAU OF EDUCATION



WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1916

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## LETTER OF TRANSMITTAL.

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DEPARTMENT OF THE INTERIOR,  
BUREAU OF EDUCATION,  
*Washington.*

SIR; Many students apply for admission to higher institutions in other States and sections than those in which they have received their high-school preparation. Many also seek certificates from examining and licensing boards, which have no direct means of knowing the standards of the schools from which the applicants come. The demand for this information led the Bureau of Education, first in the spring of 1913 and again in the autumn of 1914, to undertake the collection and preparation of lists of high schools and academies accredited by State universities, approved by State departments of education, or recognized by examining and certifying boards and by certain other agencies. The demand proved to be even greater than had been anticipated. The first edition of the bulletin was soon exhausted. There have been many requests from college and university officers for copies of the second edition. Moreover, changes are made in these lists of accredited schools from year to year. For these reasons, I have requested Dr. S. P. Capen, specialist in higher education in the bureau, once more to revise the pamphlet. The revision is contained in the accompanying manuscript which I recommend for publication as a bulletin of the Bureau of Education.

Respectfully submitted.

P. P. CLAXTON,  
*Commissioner.*

THE SECRETARY OF THE INTERIOR.



## ACCREDITED SECONDARY SCHOOLS IN THE UNITED STATES.

---

The lists of accredited secondary schools which are presented now for the third time in this bulletin are designed to meet the needs of officers charged with the admission of new students to secondary schools, colleges, universities, professional schools (especially schools of law and medicine), normal schools, etc.; of State examining and certifying boards, which are concerned with the status of secondary schools located at a distance; and of parents who may want to know about the high schools of any particular State or section.

The first issue of the bulletin was published in 1913. The introduction to the second edition, published early in 1915, called attention to the fact that the great annual increase in the number of secondary schools (in 1910-11 there were 12,213; in 1911-12 the number had grown to 13,268; in 1913-14 it had reached 13,714), together with the sudden changes in standing, generally for the better, of many secondary schools in all parts of the country, necessitate frequent revisions of the lists. No new lists have been added in this edition and the arrangement of the bulletin is substantially unchanged. The essential parts of the introductions to the previous issues are reprinted here.

### ACCREDITED SECONDARY SCHOOL DEFINED.

An "accredited secondary school," as the term is used in this bulletin, is a school which is equipped to prepare students for colleges requiring at least 14 units for unconditioned admission and which has been investigated or approved for this purpose by one of the following agencies: A State officer of education, a university or college inspector or committee on admissions, an officer or committee of an accrediting association. Except in the case of certain of the Southern States, whose high-school courses are based upon seven years of elementary training, it is understood that these 14 units represent secondary work above the standard eight-grade elementary-school course. It is assumed that the curriculum of an accredited school represents four years of 36 or more weeks each; that at least three teachers give their whole time to high-school work;<sup>1</sup> and that the school keeps up an adequate library and laboratory equipment.

---

<sup>1</sup> Exceptions are certain schools in the lists of Arkansas, Georgia, Kentucky, New Hampshire, and Vermont which have less than three teachers but otherwise conform to the definition and are approved by the State officials.



## UNIT DEFINED.

The following authoritative definition of the word "unit" has been made by the National Conference Committee on Standards of Colleges and Secondary Schools, which is composed of representatives of the National Association of State Universities, the New England College Entrance Certificate Board, the College Entrance Examination Board, the Association of Colleges and Preparatory Schools of the Middle States and Maryland, the North Central Association of Colleges and Secondary Schools, the Association of Colleges and Secondary Schools of the Southern States, the New England Association of Colleges and Secondary Schools, the Carnegie Foundation for the Advancement of Teaching, and the United States Commissioner of Education:

A unit represents a year's study in any subject in a secondary school, constituting approximately a quarter of a full year's work.

This statement is designed to afford a standard of measurement for the work done in secondary schools. It takes—

- (1) The four-year high-school course as a basis and assumes that—
- (2) The length of the school year is from 36 to 40 weeks; that—
- (3) A period is from 40 to 60 minutes in length; and that—
- (4) The study is pursued four or five periods a week;

but under ordinary circumstances a satisfactory year's work in any subject can not be accomplished in less than 120 sixty-minute hours, or their equivalent. Schools organized on any other than a four-year basis can nevertheless estimate their work in terms of this unit.

A four-year secondary-school curriculum should be regarded as representing not more than 16 units of work.

## VARIATIONS IN REQUIREMENTS OF ACCREDITING AGENCIES.

The number of subjects recognized by the various accrediting bodies as forming an acceptable part of the college preparatory course varies greatly; for example, the subjects recognized by the College Entrance Examination Board as permissible in a standard high-school course are:<sup>1</sup>

	Units.		Units.
English up to.....	3	Spanish.....	2
Mathematics up to.....	4½	History.....	4
Latin.....	4	Science.....	6
Greek.....	3	Drawing.....	2
French.....	4	Music.....	1
German.....	4		

On the other hand, there are State universities and privately endowed institutions, like Leland Stanford University, which permit

<sup>1</sup> It should be noted, however, that the maximum amount of credit which a high-school student can secure in any single subject in a year is ordinarily one unit. Four units of credit in any given subject would therefore constitute the normal maximum for a high-school course.

great enlargement of the range of electives. The University of Minnesota, for example, accepts the following:

	Units.		Units.
English.....	3-4	Vocational subjects (made up of the following).....	1-4
Mathematics.....	2-3½	Business arithmetic.....	½
Latin.....	2-4	Business law.....	½
Greek.....	2	Bookkeeping.....	1-2
French.....	1-4	Stenography and typewriting..	1-2
German.....	1-4	Freehand drawing.....	2
Spanish.....	1-4	Mechanical drawing.....	2
Scandinavian.....	1-4	Shopwork.....	2
History and social science.....	½-7	Modeling and wood carving....	1
Natural science.....	½-6	Domestic art and science up to.	4
Agriculture.....	1-4		
Normal-training subjects.....	1-3		

It will therefore be apparent that the only close correspondence among the requirements of the various institutions mentioned in this pamphlet is the quantitative one. All specify at least 14 units, except the University of South Carolina, which admits with 12. None requires more than 16 units for admission.

The requirements of each accrediting agency are briefly stated at the head of the list of schools which each accredits. At the head of each list of schools accredited by a State university or private institution the requirements for admission to the A. B. course are summarized. The schools on the accredited list generally have the privilege of certificating students to other courses as well. To outline the admission requirements for all these courses would consume much space and might lead to confusion. The requirements for admission to the A. B. course may in each case be considered fairly typical of the institution's policy with respect to entrance requirements.

#### METHODS OF ACCREDITING.

Two methods are in common use for carrying on the system of accrediting in those States where the State authority embraces agencies for higher education. Under the first the inspection of the work of the high schools is done through an officer or committee of the State university, and the list of acceptable or accredited high schools is published in the catalogue of the university and thus made available for other institutions within the same State or for institutions in neighboring States. Under the second, the inspection and rating are done by the State superintendent of public instruction, the State board of education, or the State education office, acting through specially appointed officers. Examples of the former method are furnished by the Universities of Michigan, California, and Texas; of the latter method, by the States of New York, Ohio, and Minnesota.

The requirement of the completion of a standard four-year high-school course representing at least 14 units for admission to college, or as a part of the prescription for admission to professional schools or to the practice of professions, has produced a group of organizations among whose activities are the coordination of standards of secondary education in neighboring States and the compilation of lists of accredited secondary schools. Such sectional organizations are now at work in the North Central States, New England, and the Southern States. These organizations are purely voluntary and have no legal control over the institutions which they rate. The influence which they wield, however, because of the fact that they focus representative educational opinion in their respective sections, is considerable. Occasionally also private institutions, like the University of Chicago, have carried on their own investigation and accrediting.

## CONTENTS OF THE BULLETIN.

### PART I: STATE LISTS.

The bulletin is divided into three parts. The first part, as is appropriate, contains lists of schools accredited by State universities and State officers of education. Sometimes both the State university and the State department of education publish lists of accredited schools. In such cases the list of the State university is printed first, and all schools accredited by the State education department not included in the university list are then added by way of supplement.<sup>1</sup> When the State department of education or the State university publishes lists of accredited or approved high schools of different grades, only schools of the first grade are included in the bulletin, except in the cases of Georgia, Kansas, Kentucky, Louisiana, Maryland, and Nebraska.<sup>2</sup>

<sup>1</sup> In four States, Minnesota, Missouri, Ohio, and West Virginia, the State education department accredits or approves only public schools, but private schools having the requisite standards and equipment are accredited by the State University.

<sup>2</sup> Schools accredited by the University of Georgia in Group II are included in the list published for that institution. These schools meet the requirements just outlined, except that they are admitted to the certificating privilege with only 2.5 teachers of academic subjects.

Class B schools accredited by the Kansas State Board of Education and the University of Kansas are four-year schools "which on account of financial and other considerations do not provide courses of study covering all departments of secondary work or in which there is not the same degree of permanency and efficiency in general administration."

Schools accredited by the University of Kentucky in Class B are required to have but two teachers. The session is six weeks longer, however, than that of the Class A schools.

The University of Louisiana accredits a small supplementary group of schools in addition to those approved by the State Board of Education.

The second-group schools of Maryland have been certified to by the superintendent of public instruction as fulfilling the definition of an accredited school printed above.

There are three groups of schools accredited by the University of Nebraska, groups A, B, and C. Group B includes schools which do not meet the standards of Group A schools as to the preparation of teachers or in library and laboratory facilities. Group C includes schools whose graduates may receive 28 points (14 units) credit, which gives them conditional admission to the university.

## PART II: LISTS OF ACCREDITING ASSOCIATIONS.

Part II contains the lists of the three principal associations which undertake to accredit schools. The methods or standards of these associations are not identical. The list accredited by each is preceded by a statement of the basis upon which it is compiled.

## PART III: LISTS OF CERTAIN PRIVATE INSTITUTIONS.

With regard to Part III, a special explanation is in order. After the publication of the first issue of this bulletin it was found that many excellent private schools, especially in the Eastern States, which were thoroughly equipped to prepare for college, and indeed had annually for many years been sending an entirely satisfactory delegation to the best colleges in the country, were omitted from the lists of accredited schools of the States in which they were located. This was due either to the fact that the States had no State universities admitting by certificate or to the failure of the State education departments to include private schools in their lists of approved secondary institutions. The absence of the names of many of these schools from a document as comprehensive in its scope as this publication gave rise to false impressions concerning their standing. It seemed desirable to extend the scope of the bulletin so as to secure their inclusion. Accordingly, when the second edition was in preparation, the Bureau of Education asked a number of colleges and universities admitting on certificate and drawing students from the States in which private schools had previously not received official recognition to submit their own lists of accredited schools. A similar procedure was followed during the preparation of the present edition. Three considerations have determined the choice of the higher institutions of whom this request has been made: First, the policy of admission on certificate; second, the area from which each institution was known to draw its students; and, third, the recognized high standing of each. The lists submitted by the Catholic University of America, University of Chicago, George Washington University, St. John's College, Mount Holyoke College, Wellesley College, and Tulane University are printed in full in Part III. At the end of Part III are printed also the names of those schools belonging to the Association of Colleges and Preparatory Schools of the Middle States and Maryland which, on account of their location, are not on any of the other lists included in the bulletin, but which have the privilege of certificating graduates to various colleges of high standing.

The schools are listed alphabetically, according to the towns in which they are located. The names of accredited private secondary schools and academies are printed in italics.



## PART I.—STATE LISTS.

### ALABAMA.

Schools fully affiliated with the University of Alabama for the year 1915-16.

	Units.
Admission requirements.....	14
Prescribed units:	
English.....	3
Mathematics.....	3
Latin.....	3 or 4
Electives.....	5 or 6

Abbeville—Third District Agricultural School.	Elkmont—Limestone County High School.
Albertville—Seventh District Agricultural School.	Ensley—High School.
Alexander City—High School.	Enterprise—Coffee County High School.
Andalusia—High School.	Eufaula—High School.
Anniston—	Eutaw—High School.
High School.	Evergreen—Second District Agricultural School.
Noble Institute.	Fayette—County High School.
Ashland—Clay County High School.	Florala—Covington County High School.
Athens—	Fort Deposit—Lowndes County High School.
College Academy.	Fort Payne—DeKalb County High School.
Greene University School.	Gadsden—High School.
Eighth District Agricultural School.	Gaylesville—Academy.
Atmore—Escambia County High School.	Greensboro—Southern University Fitting School.
Attalla—Etowah County High School.	Greenville—High School.
Auburn—Lee County High School	Grove Hill—Clarke County High School.
Bessemer—High School.	Guin—Marion County High School.
Birmingham—	Guntersville—Marshall County High School.
College Training School.	Gurley—Madison County High School.
Central High School.	Haleyville—High School.
Loulie Compton Seminary.	Hamilton—Sixth District Agricultural School.
Howard Academy.	Hartford—Geneva County High School.
Margaret Allen School.	Hartsells—Morgan County High School.
University High School.	Headland—Henry County High School.
Blountsville—Ninth District Agricultural School.	Heflin—Cleburne County High School.
Boaz—Snead Seminary.	Huntsville—
Brewton—Collegiate Institute.	High School.
Bridgeport—Academy.	Goodrich School.
Brundidge—Pike County High School.	Jackson—First District Agricultural School.
Butler—Choctaw County High School.	Jasper—Walker County High School.
Camden—Wilcox County High School.	La Fayette—High School.
Camp Hill—High School.	Leighton—Colbert County High School.
Castleberry—Conecuh County High School.	Lincoln—Talladega County High School.
Center—Cherokee County High School.	Lineville—N. E. Alabama Agricultural Institute.
Centerville—Bibb County High School.	Marion—
Clanton—Chilton County High School.	Judson Academy.
Clio—Barbour County High School.	Perry County High School.
Columbia—Houston County High School.	Milltown—Chambers County High School.
Columbiana—Shelby County High School.	Mobile—
Cuba—High School.	High School.
Cullman—Cullman County High School.	Knott High School.
Dadeville—Tallapoosa County High School.	University Military School.
Daphne—Normal School.	Monroeville—Monroe County High School.
Decatur—High School.	Montgomery—
Demopolis—High School.	Barnes School.
Dothan—High School.	Edgar School.
Double Springs—Winston County High School.	Sidney Lanier High School.
Eclectic—Elmore County High School.	Moulton—Lawrence County High School.

Moundville—Normal School.  
 New Decatur—High School.  
 Newton—*Baptist Collegiate Institute*.  
 Notasulga—Macon County High School.  
 Odenville—St. Clair County High School.  
 Oneonta—Blount County High School.  
 Opelika—High School.  
 Opp—High School.  
 Oxford—Calhoun County High School.  
 Ozark—Dale County High School.  
 Piedmont—High School.  
 Plantersville—Dallas County High School.  
 Prattville—Autauga County High School.  
 Reform—Pickens County High School.  
 Roanoke—Handley High School.  
 Rockford—Coosa County High School.  
 Rogersville—Lauderdale County High School.

Russellville—Franklin County High School.  
 Scottsboro—Jackson County High School.  
 Selma—High School.  
 Sheffield—High School.  
 Sylacauga—Fourth District Agricultural School.  
 Talladega—High School.  
 Thomaston—Marengo County High School.  
 Thomasville—High School.  
 Thorsby—*Institute*.  
 Tuscaloosa—High School.  
 Tusculum—High School.  
 Tuskegee—High School.  
 Union Springs—High School.  
 Vernon—Lamar County High School.  
 Wedowee—Randolph County High School.  
 Wetumpka—Fifth District Agricultural School.  
 York—Sumter County High School.

## ARIZONA.

Accredited by the University of Arizona, November, 1915.

	Units.
Admission requirements.....	15
Prescribed units:	
English.....	3
Mathematics.....	2½
History and civics.....	1
Science.....	1
Foreign languages.....	2
Electives.....	5½

Bisbee—High School.  
 Clifton—High School.  
 Douglas—High School.  
 Flagstaff—Northern Arizona Normal School (academic department).  
 Glendale—High School.  
 Globe—High School.  
 Jerome—High School.  
 Mesa—High School.  
 Miami—High School.  
 Nogales—High School.  
 Phoenix—High School.

Prescott—High School.  
 Saint Johns—*Academy*.  
 Snowflake—*Academy*.  
 Tempe—  
     High School.  
     Tempe Normal School of Arizona (academic department).  
 Thatcher—*Gila Academy*.  
 Tucson—High School.  
 Wilcox—High School.  
 Winslow—High School.  
 Yuma—High School.

In addition to the above (public) high schools, the following are also approved by the State board of education.

After July 1, 1916, high schools in order to be approved by the State board must require for graduation 15 units, as follows:

	Units.
English.....	3
Mathematics.....	2
History.....	2
Science.....	1
Electives.....	7

They must also provide opportunities to their graduates to fulfill the requirements for entrance to the University of Arizona.

Benson—High School.  
 Bisbee—High School.  
 Clifton—High School.  
 Douglas—High School.  
 Duncan—High School.  
 Glendale—High School.  
 Globe—High School.  
 Jerome—High School.  
 Kingman—High School.  
 Mesa—High School.  
 Miami—High School.  
 Morenci—High School.

Nogales—High School.  
 Phoenix—High School.  
 Prescott—High School.  
 Safford—High School.  
 Tempe—High School.  
 Tucson—High School.  
 Tombstone—High School.  
 Wilcox—High School.  
 Williams—High School.  
 Winslow—High School.  
 Yuma—High School.

## ARKANSAS.

Class A schools approved by the Arkansas State Department of Education and accredited by the University of Arkansas, November, 1915.

	Units.
University admission requirements.....	14
Prescribed units:	
English.....	3
Mathematics.....	2
History.....	1
Foreign languages.....	3
Electives.....	5
Argenta—High School.	
Arkadelphia—High School.	
Ashdown—High School.	
Atkins—High School.	
Augusta—High School.	
Bentonville—High School.	
Blytheville—High School.	
Boonville—High School.	
Brinkley—High School.	
Cabot—High School.	
Camden—Normal Training High School	
Carlisle—High School.	
Clarendon—High School.	
Conway—	
Arkansas State Normal School.	
High School.	
Corning—High School.	
Crossett—High School.	
Dardanelle—High School.	
Dermott—High School.	
Dumas—High School.	
El Dorado—High School.	
El Paso—High School.	
England—High School.	
Eureka Springs—	
Crescent College Academy.	
High School.	
Fayetteville—	
High School.	
University Training High School.	
Fordyce—High School.	
Foreman—High School.	
Forrest City—High School.	
Fort Smith—Normal Training High School.	
Gentry—High School.	
Gravette—High School.	
Green Forest—High School.	
Greenwood—High School.	
Hamburg—High School.	
Harrison—High School.	
Hazen—High School.	
Helena—High School.	
Hope—High School.	
Hot Springs—	
High School.	
Normal Training High School.	
Huntington—High School.	
Jonesboro—High School.	
Junction City—High School.	
Leslie—High School.	
Lake Village—High School.	
Little Rock—	
High School.	
Little Rock College.	
Lonoke—High School.	
Malvern—High School.	
Marianna—High School.	
Mena—High School.	
Monticello—	
High School.	
State Agricultural School.	
Moro—High School.	
Morrilton—High School.	
Mountain Home—Normal Training High School.	
Nashville—High School.	
Newport—High School.	
Paragould—High School.	
Pea Ridge—Masonic College.	
Piggott—High School.	
Pine Bluff—Normal Training High School.	
Pocahontas—High School.	
Portland—High School.	
Prescott—High School.	
Rector—High School.	
Rogers—High School.	
Russellville—High School.	
Searcy—High School.	
Siloam Springs—High School.	
Springdale—High School.	
Stamps—High School.	
Stephens—High School.	
Stuttgart—	
High School.	
Training School.	
Texarkana—Normal Training High School.	
Van Buren—High School.	
Waldron—High School.	
Walnut Ridge—High School.	
Warren—High School.	
Wynne—High School.	



## CALIFORNIA.

Accredited by the University of California for the year 1914-15.

	Units.
Admission requirements.....	15
Prescribed units:	
English.....	2
Mathematics.....	2
History and civics.....	1
Science.....	1
Foreign languages.....	2
Additional foreign language, science, or mathematics (or combinations of these subjects).....	2
Electives.....	5
Alameda—High School.	
Alhambra—City High School.	
Alpaugh—High School.	
Alturas—Modoc County High School.	
Anaheim—Union High School.	
Antioch—Riverview Union High School.	
Arcata—Union High School.	
Arroyo Grande—Union High School.	
Auburn—Placer County High School.	
Azuza—Citrus Union High School.	
Bakersfield—Kern County High School.	
Banning—Union High School.	
Beaumont—High School.	
Belmont—Belmont School.	
Benicia—High School.	
Berkeley—	
High School.	
A-to-Zed School.	
Boone's University School.	
Miss Head's School.	
Preparatory School.	
The Randolph School.	
Wellesley School.	
Bishop—Union High School.	
Bostonia—El Cajon Valley Union High School.	
Brawley—Union High School.	
Brentwood—Liberty Union High School.	
Burlingame—St. Matthew's School.	
Burbank—Union High School.	
Calexico—Union High School.	
Calistoga—Joint Union High School.	
Campbell—Union High School.	
Cedarville—Surprise Valley Union High School.	
Centerville—Union High School.	
Ceres—High School.	
Chico—High School.	
Chino—High School.	
Claremont—High School.	
Cloverdale—Union High School.	
Clovis—Union High School.	
Coalinga—Union High School.	
College City—Pierce Joint Union High School.	
Colton—High School.	
Colusa—High School.	
Compton—Union High School.	
Concord—Mount Diablo Union High School.	
Corcoran—Union High School.	
Corning—Union High School.	
Corona—High School.	
Coveelo—Round Valley Union High School.	
Covina—Union High School.	
Crescent City—Del Norte County High School.	
Crockett—John Swett Union High School.	
Danville—San Ramon Valley Union High School.	
Delano—Joint Union High School.	
Dinuba—Union High School.	
Dixon—Union High School.	
Dos Palos—Joint Union High School.	
Downey—Los Nietos Union High School.	
El Centro—Central Union High School.	
Elk Grove—Union High School.	
El Monte—Union High School.	
Elsinore—Union High School.	
Escondido—High School.	
Esparto—Union High School.	
Etna Mills—Etna Union High School.	
Eureka—City High School.	
Exeter—Union High School.	
Fairfield—Armiño Union High School.	
Fallbrook—Union High School.	
Ferndale—Union High School.	
Fillmore—Union High School.	
Fort Bragg—Union High School.	
Fortuna—High School.	
Fowler—Union High School.	
Fresno—High School.	
Fullerton—Union High School.	
Galt—Joint Union High School.	
Gilroy—High School.	
Glendale—Union High School.	
Gonzales—Union High School.	
Grass Valley—High School.	
Gridley—Union High School.	
Hanford—Union High School.	
Hayward—Union High School.	
Healdsburg—High School.	
Hemet—Union High School.	
Hollister—San Benito County High School.	
Hollywood—Immaculate Heart College.	
Holtville—Union High School.	
Hughson—High School.	
Huntington Beach—Union High School.	
Huntington Park—Union High School.	
Imperial—Imperial Valley Union High School.	
Inglewood—Union High School.	
Ione—Union High School.	
Irwin—Hillmar Union High School.	
Jackson—Joint Union High School.	
Julian—Cuyamaca High School.	
Kerman—Union High School.	
King City—Monterey County High School.	
Kingsburg—Joint Union High School.	
La Jolla—Bishop's School.	
Lakeport—Clear Lake Union High School.	
Laton—Joint Union High School.	
La Grand—Joint Union High School.	
Lemoore—Union High School.	
Lincoln—Union High School.	
Lindsay—High School.	
Livermore—Union High School.	

Lodi—Union High School.  
 Lompoc—Union High School.  
 Long Beach—Polytechnic High School.  
 Lordsburg—  
     Bonita Union High School.  
     *Palmera College, Academic Department.*  
 Los Angeles—  
     *Cathedral High School for Girls.*  
     *Cumnock Academy.*  
     Gardena Agricultural High School.  
     *Girls' Collegiate School.*  
     *Harvard School.*  
     High School.  
     Hollywood High School.  
     Lincoln High School.  
     Manual Arts High School.  
     *Marlborough School.*  
     Polytechnic High School.  
     *Saint Mary's Academy.*  
     San Pedro High School.  
     *Westlake School for Girls.*  
 Los Banos—West Side Union High School.  
 Los Gatos—High School.  
 Loyalton—Sierra Valley Joint Union High School.  
 Madera—Union High School.  
 Martinez—Alhambra Union High School.  
 Marysville—High School.  
 Maxwell—Union High School.  
 Mendocino—Mendocino County High School.  
 Merced—County High School.  
 Mill Valley—Tamalpais Union High School.  
 Modesto—High School.  
 Monrovia—City High School.  
 Montebello—High School.  
 Monterey—County High School.  
 Morgan Hill—Live Oak Union High School.  
 Mountain View—High School.  
 Napa—High School.  
 National City—High School.  
 Needles—District High School.  
 Nevada City—High School.  
 Newman—Orestimba Union High School.  
 Nordhoff—Union High School.  
 Norwalk—Excelsior Union High School.  
 Oakdale—Union High School.  
 Oakland—  
     High School.  
     *College of the Holy Names High School.*  
     *Horton School.*  
     John C. Freemont High School.  
     *Merriman School.*  
     Oceanside—Carlsbad Union High School.  
     Technical High School.  
 Oleander—Washington Union High School.  
 Ontario—Chaffey Union High School.  
 Orange—Union High School.  
 Orland—Joint Union High School.  
 Orosl—Union High School.  
 Oroville—Union High School.  
 Oxnard—Union High School.  
 Pacific Beach—*San Diego Army and Navy Academy.*  
 Pacific Grove—High School.  
 Palo Alto—  
     High School.  
     *Castilleja School.*  
     *Manzanita Hall.*  
     *Miss Harker's School.*

Pasadena—  
     High School.  
     *Orton School.*  
 Paso Robles—High School.  
 Patterson—Union High School.  
 Perris—Union High School.  
 Petaluma—High School.  
 Piedmont—*Miss Ransom and Miss Bridges' School.*  
 Placerville—El Dorado County High School.  
 Point Arena—Union High School.  
 Pomona—High School.  
 Porterville—Union High School.  
 Princeton—Joint Union High School.  
 Quincy—Plumas County High School.  
 Ramona—Union High School.  
 Red Bluff—Union High School.  
 Redding—Shasta County High School.  
 Redlands—High School.  
 Redondo—Union High School.  
 Redwood City—Sequoia Union High School.  
 Reedley—Joint Union High School.  
 Richmond—Union High School.  
 Rio Vista—Joint Union High School.  
 Ripon—Union High School.  
 Riverside—  
     Girls' High School.  
     Polytechnic High School.  
 Roseville—Union High School.  
 Sacramento—High School.  
 St. Helena—Union High School.  
 Salinas—High School.  
 San Andreas—Calaveras County High School.  
 San Bernardino—High School.  
 San Diego—  
     *Bishop's School.*  
     High School.  
 San Fernando—Union High School.  
 San Francisco—  
     *Miss Burkes' School.*  
     *California School of Mechanical Arts.*  
     *Cogswell Polytechnical College.*  
     *Drew's Coaching School.*  
     Girls' High School.  
     High School of Commerce.  
     *Hamlin School.*  
     *High School of Notre Dame.*  
     Lowell High School.  
     Mission High School.  
     Polytechnic High School.  
     *Potter School.*  
     *St. Rose Academy.*  
     *Star of the Sea School.*  
     *Trinity School.*  
     *University School.*  
 Sanger—Union High School.  
 San Jacinto—High School.  
 San Jose—  
     *College of Notre Dame.*  
     *College Park Academy.*  
     High School.  
     *Notre Dame High School.*  
     *Washburn School.*  
 San Luis Obispo—High School.  
 San Mateo—Union High School.  
 San Rafael—  
     *Dominican College.*  
     High School.

San Rafael—Continued.  
*Hitchcock Military Academy.*  
*Mount Tamalpais Military Academy.*  
 Santa Ana—High School.  
 Santa Barbara—  
*Girls' School.*  
 High School.  
 Santa Clara—High School.  
 Santa Cruz—High School.  
 Santa Maria—Union High School.  
 Santa Monica—High School.  
 Santa Paula—Union High School.  
 Santa Rosa—  
 High School.  
*Ursuline College.*  
 Santa Ynez—Santa Ynez Valley Union High  
 School.  
 Sebastopol—Analy Union High School.  
 Selma—Union High School.  
 Shorb—*Ramona Convent of the Holy Names.*  
 Sonoma—Valley Union High School.  
 Sonoma—Tuolumne County High School.  
 South Pasadena—High School.  
 Stockton—  
 High School.  
*St. Agnes' Academy.*

Susanville—Lassen County High School.  
 Sutter—Union High School.  
 Sutter Creek—Amador County High School.  
 Tracy—West Side Union High School.  
 Truckee—Meadow Lake Union High School.  
 Tulare—High School.  
 Tuolumne—Summersville Union High School.  
 Turlock—Union High School.  
 Ukiah—Mendocino County High School.  
 Vacaville—Union High School.  
 Vallejo—High School.  
 Van Nuys—High School.  
 Venice—Union Polytechnic High School.  
 Ventura—Union High School.  
 Visalia—High School.  
 Watsonville—High School.  
 Weaverville—Trinity County High School.  
 Whittier—Union High School.  
 Williams—Union High School.  
 Willits—Union High School.  
 Willows—Glenn County High School.  
 Winters—Joint Union High School.  
 Woodland—High School.  
 Yreka—Siskiyou County High School.

## COLORADO.

Accredited by the University of Colorado for the year 1915-16.

Admission requirements.....	Units.
Prescribed units:	15
English.....	3
Mathematics.....	2
Foreign language.....	4
History.....	2
Science.....	2
Electives.....	2

Alamosa—High School.  
 Arvada—High School.  
 Aspen—High School.  
 Berthoud—High School.  
 Boulder—State Preparatory School.  
 Breckenridge—High School.  
 Brighton—High School.  
 Brush—Union High School.  
 Canon City—  
 High School.  
 South Canon City High School.  
 Castle Rock—Douglas County High School.  
 Central City—Union High School.  
 Cheyenne Wells—Cheyenne County High School.  
 Colorado City—High School.  
 Colorado Springs—High School.  
 Cripple Creek—High School.  
 Debeque—High School.  
 Delta—High School.  
 Denver—  
 East Side High School.  
 Manual Training High School.  
 North Side High School.  
 South Side High School.  
 West Side High School.  
*Miss Walcott's School.*  
 Durango—High School.  
 Eaton—High School.  
 Florence—High School.  
 Fort Collins—High School.

Fort Morgan—High School.  
 Fowler—High School.  
 Fruita—Union High School.  
 Georgetown—High School.  
 Glenwood Springs—Garfield County High School.  
 Golden—High School.  
 Grand Junction—High School.  
 Greeley—High School.  
 Gunnison—Gunnison County High School.  
 Holly—Union High School.  
 Holyoke—Phillips County High School.  
 Idaho Springs—High School.  
 Julesburg—Sedgwick County High School.  
 Lafayette—High School.  
 La Junta—Otero County High School.  
 Lamar—Union High School.  
 Las Animas—Bent County High School.  
 Leadville—High School.  
 Littleton—High School.  
 Longmont—High School.  
 Louisville—High School.  
 Loveland—High School.  
 Manitou—High School.  
 Meeker—Rio Blanco High School.  
 Monte Vista—High School.  
 Montrose—Montrose County High School.  
 Ouray—Ouray County High School.  
 Palisade—  
 Mount Lincoln High School.  
 Palisade High School.

Paonia—High School.

Pueblo—

Centennial High School (Dist. No. 1).

Central High School (Dist. No. 20).

Rifle—Union High School.

Rocky Ford—High School.

Saguache—Saguache County High School.

Salka—High School.

Silverton—High School.

Sterling—Logan County High School.

Telluride—High School.

Trinidad—High School.

Victor—High School.

Walsenburg—Huerfano County High School.

Wheat Ridge—High School.

Windsor—High School.

Wray—Yuma County High School.

## CONNECTICUT.

Schools approved by the Connecticut State Board of Education, January 1, 1916.

Requirements for approval: Satisfactory building equipment and health provisions; well-adjusted course of study; a teaching staff well qualified in respect of an education, and ability to teach; instruction on the high-school plane; adequate wages and upkeep; adaptation to community interests.

Ansonia—High School.

Branford—High School.

Bridgeport—High School.

Bristol—High School.

Central Village—Plainfield High School.

Chester—High School.

Clinton—*Morgan School.*

Colechester—Bacon Academy.

Collinsville—High School.

Danbury—High School.

Danielson—Killingly High School.

Derby—High School.

Durham—High School.

Deep River—Saybrook High School.

East Hartford—High School.

Essex—High School.

Glastonbury—High School.

Greenwich—High School.

Gullford—High School.

Hartford—High School.

Meriden—High School.

Middletown—High School.

Naugatuck—High School.

New Britain—High School.

New Haven—High School.

New London—

*Bulkeley School.*

*Manual Training and Industrial School.*

*Williams Memorial Institute.*

New Milford—High School.

Norwalk—

Junior High School.

Senior High School.

Norwich—*Free Academy.*

Portland—High School.

Putnam—High School.

North Stonington—*Wheeler School.*

Ridgefield—High School.

Seymour—High School.

Shelton—High School.

Simsbury—High School.

Southington—Lewis High School.

South Manchester—High School.

Stafford Springs—Stafford High School.

Stamford—High School.

Stonington—High School.

Stratford—High School.

Suffield—High School.

Terryville—High School.

Thomaston—High School.

Thompsonville—Enfield Public High School.

Torrington—High School.

Unionville—High School.

Vernon—Rockville High School.

Waterbury—High School.

Watertown—High School.

West Hartford—High School.

West Haven—High School.

Westport—High School.

Wethersfield—High School.

Willimantic—Windam High School.

Windsor—High School.

Windsor Locks—High School.

Winsted—*Gilbert School.*

Woodbury—High School.

Woodstock—High School.

## DELAWARE.

First-grade high schools reported by the Commissioner of Education of Delaware, for the year 1915-16.

Camden-Wyoming—Caesar Rodney Consolidated School No. 1.

Georgetown—High School.

Laurel—High School.

Lewes—High School.

Milford—High School.

Newark—High School.

New Castle—High School.

Seaford—High School.

Smymna—High School.

Wilmington—High School.

## Schools Accredited by Delaware College, December, 1915.

	Units.
Admission requirements.....	14½
Prescribed units:	
English.....	3
Mathematics.....	2½
History.....	1
Modern language.....	1
Latin.....	4
Electives.....	3

Dover—*Wilmington Conference Academy.*

Georgetown—High School.

Laurel—High School.

Lewes—High School.

Milford—High School.

New Castle—High School.

Seaford—High School.

Smyrna—High School.

Wilmington—

*Friends' School.*

High School.

## DISTRICT OF COLUMBIA.

Secondary schools which have definite and formal accredited relations with outside universities equivalent to those of accredited schools in the States.

Washington—

Armstrong Manual Training High School  
(colored).

Central High School.

Eastern High School.

*Emerson Institute.**Friends' Select School.*

Washington (continued)—

*Madeira School for Girls.*

M Street High School (colored).

McKinley Manual Training High School.

*National Cathedral School for Boys.**National Cathedral School for Girls.*

Western High School.

## FLORIDA.

Schools approved by the Florida State Board of Education and accredited by the University of Florida  
December, 1915.

	Units.
University admission requirements.....	16
Prescribed units:	
English.....	3
Mathematics.....	3
History.....	1
Science.....	1
Latin.....	2
Electives.....	6

Arcadia—High School.

Bartow—High School.

Bradentown—High School.

Brooksville—High School.

Clearwater—High School.

Dade City—High School.

Daytona—High School.

DeFuniak Springs—High School.

Dunnellon—High School.

Eustis—High School.

Fort Lauderdale—High School.

Fort Meade—High School.

Fort Myers—High School.

Fort Pierce—High School.

Gainesville—High School.

Jacksonville—High School.

Key West—High School.

Kissimmee—High School.

Lake Butler—High School.

Lake City—High School.

Largo—High School.

Lakeland—High School.

Leesburg—High School.

Live Oak—High School.

Madison—High School.

Marianna—High School.

Miami—High School.

Mulberry—High School.

New Smyrna—High School.

Ocala—High School.

Orlando—High School.

Palatka—High School.

Palmetto—High School.

Pensacola—High School.

Plant City—High School.

Punta Gorda—High School.

Quincy—Gadsden County High School.

St. Augustine—High School.

St. Cloud—High School.

St. Petersburg—High School.

Sanford—High School.

Sarasota—High School.

Seabreeze—High School.

Starke—High School.

Tallahassee—High School.

Tampa—High School.

Tarpon Springs—High School.

Wauchula—High School.

West Palm Beach—High School.

Zephyrhills—High School.

¹ Equal to 14½ standard units.

## GEORGIA.

## GROUP I.

Schools "fully accredited" by the University of Georgia, 1915-16. Graduation on 15 to 16 accepted units.

	Units.
Admission requirements.....	14
Prescribed units:	
English.....	3
Mathematics.....	2½
History.....	2
Foreign languages.....	2
Electives.....	2½
Albany—High School.	
Americus—High School.	
Athens—High School.	
Atlanta—	
Boys' High School.	
Girls' High School.	
Marist College.	
Peacock's School.	
Technological High School.	
Washington Seminary.	
Woodberry School.	
Augusta—	
Richmond Academy.	
St. Joseph's Academy.	
Summerville Academy.	
Tubman High School.	
Bainbridge—High School.	
Barnesville—Gordon Institute.	
Boston—High School.	
Brunswick—Glynn Academy.	
Cartersville—High School.	
Cedartown—High School.	
College Park—Georgia Military Academy.	
Columbus—High School.	
Commerce—High School.	
Cordele—High School.	
Dalton—High School.	
Demorest—Piedmont Academy.	
Dublin—High School.	
Elberton—High School.	
Fitzgerald—High School.	
Fort Valley—High School.	
Gainesville—Riverside Military Academy.	
Greensboro—High School.	
Griffin—High School.	
Jackson—High School.	
La Grange—	
College Academy.	
High School.	
Locust Grove—Institute.	
Macon—Lanier High School.	
Madison—High School.	
Marietta—High School.	
McRae—South Georgia College.	
Milledgeville—Georgia Military College.	
Moultrie—High School.	
Mount Berry—The Berry School for Boys.	
Newnan—High School.	
Quitman—High School.	
Rome—	
Darlington Academy.	
High School.	
Savannah—	
Benedictine College.	
Chatham Academy.	
Pape School.	
Thomaston—R. E. Lee Institute.	
Thomasville—High School.	
Tifton—High School.	
Toccoa—High School.	
Valdosta—High School.	
Washington—High School.	
Waycross—High School.	
West Point—High School.	

## GROUP II.

Graduation on 14 accepted units.

Ashburn—High School.	Hartwell—High School.
Auburn—Christian Academy.	Hepzibah—High School.
Baxley—High School.	Jonesboro—High School.
Blackshear—Pierce Collegiate Institute.	Lawrenceville—High School.
Blakely—High School.	McDonough—High School.
Bowdon—High School.	Monroe—High School.
Bowman—Gibson-Mercer Institute.	Montezuma—High School.
Buena Vista—High School.	Mount Vernon—Brewer-Parker Institute.
Camilla—High School.	Norman Park—Institute.
Canton—High School.	Pavo—High School.
Carrollton—High School.	Sandersville—High School.
Cave Spring—Hearn Academy.	Sparks—Collegiate Institute.
Cochran—High School.	Sparta—High School.
Columbus—Secondary Industrial School.	Tallapoosa—High School.
Dawson—High School.	Tennille—High School.
Decatur—High School.	Thomson—High School.
Eastman—High School.	Vidalia—High School.
Forsyth—High School.	Warren—High School.
Gainesville—High School.	Wrens—High School.
Graymont—High School.	Winder—High School.

## IDAHO.

Accredited by the University of Idaho, April, 1916.

	Units.
Admission requirements.....	15
Prescribed units:	
English.....	3
Mathematics.....	2
Foreign language (one).....	2
Social science, including history.....	1
Natural science.....	1
Electives.....	6
Albion—State Normal School.	
American Falls—High School.	
Bellevue—High School.	
Blackfoot—High School.	
Boise—	
High School.	
<i>St. Margaret's Academy.</i>	
<i>St. Teresa's Academy.</i>	
Bonnars Ferry—High School.	
Buhl—High School.	
Burke—High School.	
Burley—High School.	
Caldwell—	
<i>College of Idaho, Preparatory Department.</i>	
High School.	
Coeur d' Alene—	
<i>Coeur d' Alene College.</i>	
Cottonwood—High School.	
Council—High School.	
Culdesac—High School.	
Emmett—High School.	
Filer—High School.	
Fruitland—High School.	
Genesee—High School.	
Glenns Ferry—High School.	
Gooding—High School.	
Grangeville—High School.	
Halley—High School.	
Idaho Falls—High School.	
Jerome—High School.	
Kamiah—High School.	
Kuna—High School.	
Lapwai—High School.	
Lewiston—	
High School.	
State Normal School.	
Malad—High School.	
Meridian—High School.	
Middleton—High School.	
Midvale—High School.	
Montpelier—High School.	
Moscow—	
High School.	
<i>Ursuline Academy.</i>	
Mountain Home—High School.	
Mullan—High School.	
Nampa—High School.	
New Plymouth—High School.	
Nes Perce—High School.	
Orofino—High School.	
Paris— <i>Fielding Academy.</i>	
Parma—High School.	
Payette—High School.	
Plummer—High School.	
Pocatello—	
Idaho Technical Institute.	
High School.	
Post Falls—High School.	
Potlatch—High School.	
Preston— <i>Oneida State Academy.</i>	
Rathdrum—High School.	
Reubens—High School.	
Rexburg— <i>Ricks Academy.</i>	
Richfield—High School.	
Rigby—High School.	
Rupert—High School.	
St. Anthony—High School.	
Salem Sugar—High School.	
Salmon—High School.	
Sandpoint—High School.	
Shoshone—High School.	
Spirit Lake—High School.	
Star—High School.	
Troy—High School.	
Twin Falls—High School.	
Wallace—High School.	
Wardner—High School.	
Welser—	
High School.	
<i>Idaho Industrial Institute.</i>	
Wendell—High School.	
Winchester—High School.	

## ILLINOIS.

Accredited by the University of Illinois, March, 1916.

"The following high schools, having all the prescribed units and enough others to make up the required total of 15 units, are in the list of fully accredited schools.

"Not all these schools, however, are accredited for the same amount of work, nor all for the same subjects. A student presenting a certificate from any one of these schools will be given entrance credit for all the subjects named therein for which the said school is specifically accredited, as shown in the certificate of its accredited relation issued by the university."

	Units.
Admission requirements.....	15
Prescribed units—	
English.....	3
Mathematics.....	2
Science.....	1
For courses in literature and arts in the college of liberal arts and sciences—	
Foreign language.....	2
Electives.....	7
Abingdon—High School.	
Albion—	
High School.	
<i>Southern Collegiate Institute.</i>	
Aledo—	
<i>Drury Academy.</i>	
High School.	
Altamont—High School.	
Alton—	
High School.	
<i>Western Military Academy.</i>	
Amboy—High School.	
Anna—	
High School.	
<i>Union Academy.</i>	
Aroola—High School (Township).	
Arlington Heights—High School.	
Armington—High School (Township).	
Arthur—High School.	
Ashland—High School.	
Ashton—High School.	
Assumption—High School (Township).	
Astoria—High School.	
Atlanta—High School.	
Atwood—High School.	
Augusta—High School.	
Aurora—	
East High School.	
<i>Jennings Seminary.</i>	
West High School.	
Avon—High School.	
Barrington—High School.	
Barry—High School.	
Batavia—High School.	
Beardstown—High School.	
Belleville—High School.	
Bellflower—High School (Township).	
Belvidere—High School.	
Bement—High School.	
Benton—High School (Township).	
Biggsville—High School (Township).	
Bismarck—High School (Township).	
Bloomington—	
High School.	
<i>St. Mary's High School.</i>	
Blue Island—High School (Township).	
Bowen—High School.	
Bradford—High School.	
Bridgeport—High School (Township).	
Buda—High School.	
Bushnell—High School.	
Byron—High School.	
Cairo—	
High School.	
Summer High School.	
Cambridge—High School.	
Camp Point—High School.	
Canton—High School.	
Carbondale—Southern Illinois Normal University	
High School.	
Carlinville—High School.	
Carlyle—High School.	
Carmi—High School (Township).	
Carrollton—High School.	
Cartersville—High School.	
Carthage—	
<i>Carthage College Academy.</i>	
High School.	
Casey—High School.	
Centralia—High School (Township).	
Champaign—High School.	
Charleston—High School.	
Chatham—High School.	
Chatsworth—High School.	
Chenoo—High School.	
Chester—High School.	
Chicago—	
Austin High School.	
Bowen High School.	
Calumet High School.	
Carl Schurz High School.	
<i>Chicago Latin School.</i>	
R. T. Crane Technical High School.	
Englewood High School.	
Fenger High School.	
<i>Francis W. Parker School.</i>	
Harrison Technical High School.	
<i>Harvard School.</i>	
Hyde Park High School.	
<i>Kennwood Institute.</i>	
Lake View High School.	
Lane Technical High School.	
<i>Loyola Academy.</i>	
Lucy Flower Technical High School.	
McKinley High School.	
Marshall High School.	
Medill High School.	
<i>Morgan Park Academy.</i>	
Morgan Park High School.	
<i>North Park College Academy.</i>	



## Chicago—Continued.

Parker High School.  
*St. Ignatius Academy.*  
 Senn High School.  
*Starrett School for Girls.*  
 Tilden High School.  
 Tuley High School.  
 R. A. Walker High School.  
 Wendell Phillips High School.  
*University High School.*  
 Chicago Heights—High School (Township).  
 Chillicothe—High School (Township).  
 Chrisman—High School (Township).  
 Cicero—High School (J. S. Morton Township).  
 Clayton—High School.  
 Clinton—High School.  
 Colfax—High School.  
 Collinsville—High School (Township).  
 Crystal Lake—High School.  
 Dallas City—High School.  
 Danville—High School.  
 Decatur—High School.  
 De Kalb—High School (Township).  
 Delavan—High School.  
 Des Plaines—High School (Maine Township).  
 Divergen—High School (Township).  
 Dixon—  
     High School.  
     North Dixon High School.  
 Downers Grove—High School.  
 Dundee—High School.  
 Duquoin—High School (Township).  
 Dwight—High School.  
 Earlville—High School.  
 East Moline—High School (Township).  
 East St. Louis—High School.  
 Edwardsville—High School.  
 Effingham—High School.  
 Eldorado—High School (Township).  
 Elgin—  
     *Elgin Academy.*  
     High School.  
 Elizabeth—High School.  
 Elmhurst—  
     *Evangelical Proseminar.*  
     High School.  
 Elmwood—High School.  
 El Paso—High School.  
 Equality—High School (Township).  
 Eureka—  
     *College Preparatory School.*  
     High School.  
 Evanston—  
     *Evanston Academy.*  
     High School (Township).  
 Fairbury—High School.  
 Farmer City—High School (Township).  
 Farmington—High School.  
 Fisher—High School.  
 Flora—High School (Township).  
 Forrest—High School.  
 Freeport—High School.  
 Fulton—High School.  
 Galena—High School.  
 Galesburg—High School.  
 Galva—High School.  
 Geneseo—  
     *Geneseo Collegiate Institute.*  
     High School (Township).

Geneva—High School.  
 Genoa—High School.  
 Georgetown—High School (Township).  
 Gibson City—High School (Township).  
 Gilman—High School.  
 Godfrey—*Monticello Seminary.*  
 Granite City—High School.  
 Grayville—High School.  
 Greenfield—High School.  
 Greenup—High School.  
 Green Valley—High School.  
 Greenview—High School.  
 Greenville—High School.  
 Griggsville—High School.  
 Hamilton—High School.  
 Harrisburg—High School (Township).  
 Harvard—High School.  
 Harvey—High School (Township).  
 Havana—High School.  
 Hebron—High School.  
 Henry—High School.  
 Herrin—High School (Township).  
 Herscher—High School (Township).  
 Heyworth—High School.  
 Highland—High School.  
 Highland Park—High School (Township).  
 Hillsboro—High School.  
 Hincley—High School.  
 Hindsboro—Union High School.  
 Hinsdale—High School (Township).  
 Homer—High School.  
 Hoopeson—High School.  
 Hume—High School.  
 Hutsonville—High School (Township).  
 Iliopolis—High School.  
 Industry—High School (Township).  
 Jacksonville—  
     *Academy of the Illinois Woman's College.*  
     High School.  
     *Routt College Academy.*  
     *Whipple Academy.*  
 Jerseyville—High School.  
 Johnson City—High School.  
 Joliet—High School (Township).  
 Kankakee—High School.  
 Kansas—High School.  
 Keithsburg—High School.  
 Kenilworth—High School (Township).  
 Kewanee—High School.  
 Kimmunity—High School.  
 Knoxville—High School.  
 [Knoxville]—*St. Albans School.*  
 Lacon—Union High School.  
 La Grange—High School (Township).  
 La Harpe—High School.  
 Lake Forest—  
     *Ferry Hall.*  
     *Lake Forrest Academy.*  
 Lanark—High School.  
 La Salle—High School (Township).  
 Lawrenceville—High School (Township).  
 Lena—High School.  
 LeRoy—High School.  
 Lewistown—High School.  
 Lexington—High School.  
 Libertyville—High School.  
 Lincoln—High School.  
 Litchfield—High School.  
 Lockport—High School (Township).

Loda—High School.  
 Lovington—High School (Township).  
 McHenry—High School.  
 McLean—High School.  
 McLeansboro—High School.  
 McNabb—John Swaney High School.  
 Macomb—  
     High School.  
     Western Illinois State Normal Academy.  
 Madison—High School.  
 Magnolia—High School.  
 Mansfield—High School.  
 Manteno—High School.  
 Marengo—High School.  
 Marion—High School (Township).  
 Marissa—High School (Township).  
 Maroa—High School.  
 Marseilles—High School.  
 Marshall—High School (Township).  
 Martinsville—High School.  
 Mason City—High School.  
 Mattoon—High School.  
 Maywood—High School (Township).  
 Mazon—High School (Township).  
 Mendon—High School.  
 Mendota—High School.  
 Metropolis—High School.  
 Milford—High School (Township).  
 Minonk—High School.  
 Moline—High School.  
 Momence—High School.  
 Monmouth—High School.  
 Monticello—High School.  
 Morris—High School.  
 Morrison—High School.  
 Morrisonville—High School.  
 Morton—High School (Township).  
 Mound City—High School.  
 Mount Carmel—High School.  
 Mount Carroll—  
     *Frances Shimer School.*  
     High School.  
 Mount Morris—  
     *College Academy.*  
     High School.  
 Mount Pulaski—High School (Township).  
 Mount Sterling—High School.  
 Mount Vernon—High School (Township).  
 Murphysboro—High School (Township).  
 Naperville—  
     High School.  
     *Northwestern College Academy.*  
 Nashville—High School.  
 Neoga—High School (Township).  
 Newman—High School (Township).  
 Newton—High School.  
 Nokomis—High School.  
 Normal—  
     High School.  
     *Normal University High School.*  
 Oak Park—High School (Township).  
 Oblong—High School (Township).  
 Odell—High School.  
 Olney—High School.  
 Onarga—  
     *Grand Prairie Seminary.*  
     High School.  
 Oregon—High School.

Ottawa—High School (Township).  
 Palatine—High School.  
 Palestine—High School.  
 Pana—High School (Township).  
 Paris—High School.  
 Pawnee—High School (Township).  
 Paw Paw—High School.  
 Paxton—High School.  
 Pekin—High School.  
 Peoria—  
     *Academy of Our Lady.*  
     Averyville High School.  
     *Bradley Polytechnic Institute.*  
     Central High School.  
     Manual Training High School.  
 Peotone—High School.  
 Petersburg—High School.  
 Pittsfield—High School.  
 Plano—High School.  
 Polo—High School.  
 Pontiac—High School (Township).  
 Princeton—High School (Township).  
 Princeville—High School.  
 Prophetstown—High School.  
 Quincy—  
     High School.  
     *St. Mary's Academy.*  
 Rantoul—High School.  
 Raymond—High School.  
 Richmond—High School.  
 Ridgely—High School (Township).  
 Riverside—High School (Township).  
 Robinson—High School (Township).  
 Rochelle—High School.  
 Rock Falls—High School.  
 Rockford—  
     High School.  
     Harlem Consolidated School.  
     *St. Thomas School.*  
 Rock Island—  
     *Augustana College Academy.*  
     High School.  
     *Villa de Chantal.*  
 Rollo—Consolidated School.  
 Roodhouse—High School.  
 Roseville—High School (Township).  
 Rossville—High School.  
 Rushville—High School.  
 St. Anne—High School.  
 St. Charles—High School.  
 St. Elmo—High School.  
 Salem—High School.  
 Sandwich—High School.  
 Savanna—High School (Township).  
 Saybrook—High School.  
 Sheffield—High School.  
 Shelbyville—High School.  
 Sheldon—High School.  
 Skidell—High School (Township).  
 Sparta—High School (Township).  
 Springfield—  
     High School.  
     *Ursuline Academy.*  
 Spring Valley—Hall Township High School.  
 Stanford—High School.  
 Staunton—High School.  
 Sterling—High School (Township).  
 Stockland—High School (Township).

Stockton—High School.  
 Stonington—High School.  
 Streater—High School (Township).  
 Stronghurst—High School.  
 Sullivan—High School.  
 Sycamore—High School.  
 Taylorville—High School (Township).  
 Tiskilwa—High School (Joint Township).  
 Tolono—High School.  
 Toluca—High School.  
 Toulon—High School (Township).  
 Tuscola—High School.  
 Urbana—High School.  
 Vandalia—High School.  
 Vermillion Grove—*Vermillion Academy*.  
 Vermont—High School.  
 Vienna—High School (Township).  
 Villa Grove—High School.  
 Virden—High School.  
 Virginia—High School.  
 Walnut—High School.

Warren—High School.  
 Warsaw—High School.  
 Washburn—High School.  
 Washington—High School.  
 Waterloo—High School.  
 Watseka—High School.  
 Waukegan—High School (Township).  
 Waverly—High School (Township).  
 Wenona—High School.  
 West Chicago—High School.  
 Westville—High School (Township).  
 Wheaton—  
     High School.  
     *Wheaton College Academy*.  
 White Hall—High School.  
 Wilmington—High School.  
 Woodstock—High School.  
 Wood River—High School.  
 Wyoming—High School.  
 Yorkville—High School.

Public high schools (in addition to those above accredited by the University of Illinois) "recognized" by the State Superintendent of Public Instruction of Illinois.

Requirements for recognition: Building, rooms, library, laboratories, shops, heating, lighting, ventilation, water supply, toilet facilities and janitor service adequate for size of school and what it undertakes to do; school year of not less than 36 weeks; daily recitations in all subjects for which full credit is allowed; recitation periods 40 minutes; admission to the first year on graduation from the eighth grade; graduation on 16 units of real high-school work; full time of at least two assistants besides the principal (or superintendent) given to high-school classes; no teacher to undertake more than seven classes daily; each pupil to carry four studies with daily recitations.

Alexis—High School.  
 Alvin—High School (Township).  
 Arenzville—High School.  
 Armstrong—High School (Township).  
 Ashley—High School (Township).  
 Benld—High School (Township).  
 Blandinsville—High School.  
 Bunker Hill—High School.  
 Catlin—High School.  
 Chapin—High School.  
 Cobden—High School.  
 Coffeen—High School.  
 Columbia—High School.  
 Cuba—High School.  
 Fairfield—High School.  
 Farina—High School.  
 Flanagan—High School.  
 Franklin—High School.  
 Franklin Grove—High School.  
 Gardner—High School (Township).  
 Garrett—High School.  
 Gillespie—High School.  
 Girard—High School (Township).  
 Golconda—High School.  
 Hampshire—High School.  
 Harlem—High School.  
 Hull—High School.  
 Huntley—High School.  
 Ipava—High School.  
 Jonesboro—High School.  
 Kewanee—Wethersfield High School (Township).  
 Kirkwood—High School.  
 Lebanon—High School.  
 Lemont—High School (Township).  
 Mackinaw—High School (Township).  
 Manlius—High School (Township).  
 Mascoutah—High School.  
 Medora—High School (Township).  
 Melvin—High School.

Metamora—High School (Township).  
 Milledgeville—High School.  
 Minier—High School.  
 Mounds—High School (Township).  
 Mount Olive—High School.  
 Moweaqua—High School.  
 Murrayville—High School.  
 Oakland—High School (Township).  
 O'Fallon—High School.  
 Orion—High School.  
 Palmyra—High School.  
 Pinckneyville—High School.  
 Piper City—High School.  
 Plainfield—High School.  
 Pleasant Hill—High School.  
 Plymouth—High School.  
 Potomac—High School.  
 Ramsey—High School.  
 Roanoke—High School (Township).  
 Rutland—High School.  
 Shabbona—High School.  
 Sibley—High School (Township).  
 Somonauk—High School.  
 Sorrento—High School.  
 Spring Valley—High School (Township).  
 Tallula—High School.  
 Thebes—High School (Township).  
 Tonica—High School.  
 Towanda—High School.  
 Tremont—High School.  
 Trenton—High School.  
 Versailles—High School.  
 Waterman—High School.  
 Waynesville—High School (Township).  
 Westfield—High School (Township).  
 Willow Hill—High School (Township).  
 Winchester—High School.  
 Wyanaet—High School.

## INDIANA.

"Commissioned" (approved) by the State department of public instruction for the year 1915-16, and accredited by Indiana University.

University admission requirements.....	Units.
Prescribed units:.....	16
English.....	3
Mathematics.....	2
Foreign language.....	2
History.....	1
Science.....	1
Additional units selected from above subjects.....	2
Electives.....	5

Acton—High School.  
 Advance—High School.  
 Akron—High School.  
 Albany—High School.<sup>1</sup>  
 Albion—High School.  
 Alexandria—High School.  
 Ambia—High School.<sup>1</sup>  
 Amboy—High School.  
 Amo—High School.  
 Anderson—High School.  
 Andrews—High School.  
 Angola—  
     High School.  
     *Tri-State College.*  
 Arcadia—  
     High School.  
     Walnut Grove High School.  
 Argos—High School.  
 Ashley—High School.<sup>1</sup>  
 Atlanta—High School.  
 Attica—  
     High School.  
     Jackson Township High School.  
 Auburn—High School.  
 Aurora—High School.  
 Avilla—High School.  
 Batesville—High School.  
 Battle Ground—High School.  
 Bedford—High School.  
 Berne—High School.  
 Bicknell—High School.  
 Blackhawk—High School.  
 Bloomfield—High School.  
 Bloomingdale—*Academy.*  
 Bloomington—High School.  
 Bluffton—High School.  
 Boone Grove—High School.  
 Boonville—High School.  
 Boswell—High School.  
 Bourbon—High School.  
 Brazil—High School.  
 Bremen—High School.  
 Bringhurst—High School.<sup>1</sup>  
 Bristol—High School.  
 Broad Ripple—High School.  
 Brook—High School.  
 Brookston—High School.  
 Brookville—High School.  
 Brownsburg—High School.<sup>1</sup>  
 Brownstown—High School.  
 Bruceville—High School.  
 Bryant—  
     High School.  
     Poling High School.

Buck Creek—High School.  
 Bunker Hill—High School.  
 Burket—High School.<sup>1</sup>  
 Burlington—High School.  
 Burnetts Creek—Burnettsville High School.  
 Burney—High School.  
 Butler—High School.  
 Cambridge City—High School.  
 Camden—High School.  
 Campbellsburg—High School.  
 Cannellton—High School.<sup>1</sup>  
 Carlisle—Hadden Township Joint High School.  
 Carmel—High School.  
 Carthage—High School.  
 Castleton—High School.  
 Cayuga—High School.<sup>1</sup>  
 Centerville—High School.  
 Chalmers—High School.  
 Charlestown—High School.<sup>2</sup>  
 Charlottesville—High School.<sup>1</sup>  
 Chesterton—High School.  
 Chrisney—High School.<sup>1</sup>  
 Churubusco—High School.  
 Cicero—High School.  
 Clarksburg—High School.  
 Clarks Hill—High School.<sup>1</sup>  
 Clay City—High School.  
 Claypool—High School.<sup>1</sup>  
 Clayton—High School.  
 Clifford—Flatrock Township High School.<sup>1</sup>  
 Clinton—High School.  
 Cloverdale—High School.  
 Coalmont—High School.<sup>2</sup>  
 Coesse—High School.  
 Colfax—High School.  
 Collegeville—*St. Joseph's College.*  
 Columbia City—High School.  
 Columbus—High School.  
 Connersville—High School.  
 Converse—High School.  
 Corydon—High School.  
 Covington—High School.  
 Cowan—High School.<sup>1</sup>  
 Crawfordsville—High School.  
 Crete—Spartansburg High School.  
 Cromwell—High School.<sup>1</sup>  
 Crothersville—High School.<sup>1</sup>  
 Crown Point—High School.  
 Culver—High School.  
 Cumberland—High School.  
 Cutler—High School.<sup>2</sup>  
 Cynthiana—High School.  
 Dale—High School.  
 Daleville—High School.

<sup>1</sup> Commission expired June 30, 1915.

<sup>2</sup> Commission expired June 30, 1914.

## Dana—

Helt Township High School.  
High School.

## Danville—

*Central Normal College, Academic Department.*  
High School.

## Darlington—High School.

Dayton—High School.<sup>1</sup>

## Decatur—High School.

## Decker—High School.

## Delphi—High School.

## Desoto—High School.

## Dublin—High School.

## Dunkirk—High School.

## Earl Park—High School.

## East Chicago—High School.

Eaton—High School.<sup>1</sup>

## Edinburg—

High School.

Mount Auburn High School.

## Edwardsport—High School.

## Elkhart—High School.

Ellettsville—High School.<sup>1</sup>

## Elnora—High School.

## Elwood—High School.

Eminence—High School.<sup>1</sup>

## Emison—High School.

## English—High School.

## Etna Green—High School.

## Evansville—

High School.

High School (colored).

## Fairland—

Boggs town High School.

High School.

## Fairmount—

*Academy.*

High School.

*Theological Institute.*

## Farmersburg—High School.

## Farmland—High School.

Ferdinand—*Academy of the Immaculate Conception.*Flora—High School.<sup>1</sup>

## Fontanet—High School.

## Forest—High School.

## Fort Branch—High School.

## Fortville—High School.

## Fort Wayne—

*Central Catholic High School.*

High School.

*St. Augustine Academy.*

*St. Catherine's Academy.*

## Fountain City—High School.

## Fowler—

*Academy of Sacred Heart.*

High School.

## Francesville—High School.

Francisco—High School.<sup>1</sup>

## Frankfort—High School.

## Franklin—

High School.

Hopewell Township High School.

## Frankton—High School.

## Freelandville—High School.

Fremont—High School.<sup>1</sup>

## French Lick—High School.

## Frichton (Vincennes, R. No. 2)—High School.

## Galveston—High School.

## Garrett—High School.

## Gary—High School.

## Gas City—High School.

## Gaston—High School.

## Geneva—High School.

## Gilead—High School.

## Goldsmith—High School.

## Goodland—High School.

## Goshen—

*Academy.*

High School.

## Gosport—High School.

## Grabill—Leo High School.

Grandview—High School.<sup>1</sup>

## Grass Creek—High School.

## Greencastle—

*De Pauw Academy.*

High School.

## Greenfield—

High School.

Westland High School.

## Greensburg—High School.

## Greens Fork—High School.

## Greentown—High School.

## Greenwood—High School.

## Hagerstown—High School.

## Hamilton—High School.

## Hamlet—High School.

## Hammond—

High School.

*St. Joseph's Academy.*

## Hanna—High School.

Hanover—*Academy.*

## Harlan—High School.

## Hartford City—High School.

## Hebron—High School.

## Hillsboro—High School.

## Hobart—High School.

Holtan—High School.<sup>1</sup>

## Hope—High School.

## Howe—Lima High School.

## Hudson—High School.

## Huntingburg—High School.

## Huntington—

*Central College Academy.*

High School.

Rock Creek Center High School.<sup>1</sup>

## Hymers—High School.

## Idaville—High School.

## Indianapolis—

Indiana School for Blind.

Manual Training High School.

*St. Agnes Academy.*

*St. John's Academy.*

Shorthridge High School.

Technical High School.

*Tudor Hall.*

## Inwood—High School.

Ireland—High School.<sup>1</sup>

## Jamestown—High School.

## Jasonville—High School.

## Jasper—

*College.*

High School.

<sup>1</sup> Commission expired June 30, 1915.

Jeffersonville—High School.  
 Jonesboro—High School.  
 Kempton—High School.<sup>1</sup>  
 Kendallville—High School.  
 Kentland—High School.  
 Kewanna—High School.  
 Kingman—High School.  
 Kirklin—High School.  
 Knightstown—High School.  
 Knox—High School.  
 Kokomo—High School.  
 Kouts—High School.  
 La Crosse—High School.<sup>1</sup>  
 Ladoga—High School.<sup>1</sup>  
 Lafayette—  
     High School.  
     Wea Township High School.  
 Lafontaine—High School.<sup>1</sup>  
 Lagrange—High School.  
 Lake—Luce Township High School.  
 Lagro—High School.  
 Laketon—High School.  
 Lakeville—High School.<sup>1</sup>  
 La Otto—High School.  
 Lapel—High School.  
 Laporte—High School.  
 Lawrenceburg—High School.  
 Leavenworth—High School.<sup>1</sup>  
 Lebanon—High School.  
 Letts—High School.  
 Liberty—High School.  
 Liberty Center—High School.<sup>1</sup>  
 Ligonier—High School.  
 Linden—High School.  
 Linton—High School.  
 Linton—High School.  
 Logansport—  
     High School.  
     Metee High School.  
 Loogootee—High School.  
 Lowell—High School.<sup>1</sup>  
 Lucerne—High School.<sup>1</sup>  
 Lynn—High School.  
 Lyons—High School.  
 McCordsville—High School.  
 Madison—  
     High School.  
     High School (colored).  
 Manilla—High School.  
 Marengo—High School.  
 Marion—  
     High School.  
     *Normal Institute.*  
 Markle—High School.  
 Martinsville—High School.  
 Matthews—High School.  
 Mecca—High School.  
 Medaryville—High School.  
 Medora—High School.  
 Mellott—High School.  
 Mentone—  
     Beaver Dam Township High School.  
     High School.  
 Merom—*Union Christian Academy.*  
 Michigan City—High School.

<sup>1</sup> Commission expired June 30, 1915.

Michigantown—High School.<sup>1</sup>  
 Middlebury—High School.  
 Middletown—High School.  
 Milan—High School.  
 Milford—High School.  
 Millersburg—High School.<sup>1</sup>  
 Milroy—High School.  
 Milton—High School.  
 Mishawaka—High School.  
 Mitchell—High School.  
 Modoc—  
     High School.  
     Huntsville Township High School.  
 Monon—High School.  
 Monroe—High School.  
 Monroe—City High School.  
 Monroeville—High School.  
 Monrovia—High School.<sup>1</sup>  
 Montezuma—High School.  
 Monticello—High School.  
 Montmorenci—High School.  
 Montpelier—High School.  
 Moores Hill—*College Academy.*  
 Moreland—High School.  
 Mooresville—High School.  
 Morgantown—High School.  
 Morocco—High School.  
 Morristown—High School.  
 Mount Summit—High School.  
 Mount Vernon—High School.  
 Mulberry—  
     High School.  
     *Weidner Institute.*  
 Muncie—  
     High School.  
     *Normal Institute.*  
     Royerton High School.  
 Nappanee—High School.  
 Nashville—High School.  
 New Albany—  
     High School.  
     High School (colored).  
 New Augusta—High School.  
 Newburg—High School.<sup>2</sup>  
 New Carlisle—High School.  
 Newcastle—High School.  
 New Harmony—High School.  
 New Haven—High School.  
 New London—High School.<sup>1</sup>  
 New Market—High School.  
 New Paris—High School.<sup>1</sup>  
 Newport—High School.<sup>1</sup>  
 New Richmond—High School.  
 Newtown—High School.  
 Nineveh—High School.<sup>1</sup>  
 Noblesville—High School.  
 North Judson—High School.  
 North Liberty—High School.  
 North Manchester—  
     Chester Township High School.  
     High School.  
     *Manchester Academy.*  
 North Salem—High School.  
 North Vernon—High School.  
 Notre Dame—*St. Mary's Academy.*

<sup>2</sup> Commission expired June 30, 1914.

Oakland City—

*College.*

High School.

Oaklandon—High School.

Oaktown—High School.

Odon—High School.

Oldenburg—*Academy of the Immaculate Conception*

Onward—High School.

Oriand—High School.

Orleans—High School.

Osoola—Bango Township High School.

Osgood—High School.<sup>1</sup>

Ossian—High School.

Otterbain—High School.

Otwell—High School.

Owensville—High School.

Oxford—High School.

Paoli—High School.

Paragon—High School.<sup>1</sup>

Parker—Monroe High School.

Pendleton—High School.

Pennville—High School.

Perrysville—Highland Township High School.

Peru—High School.

Petersburg—High School.

Petroleum—High School.

Pimento—High School.

Pine Village—High School.<sup>1</sup>

Plainfield—

*Central Academy.*

High School.

Plainville—

Epsom Township High School.

High School.

Pleasant Lake—High School.

Plymouth—High School.

Portland—High School.

Poseyville—High School.

Princeton—

High School.

High School (colored).<sup>1</sup>

Pulaski—High School.<sup>1</sup>

Raub—High School.

Redkey—High School.

Remington—High School.

Rensselaer—High School.

Reynolds—High School.<sup>1</sup>

Richmond—High School.

Ridgeville—

Green Township High School.

High School.

Jefferson High School.

Riley—High School.

Rising Sun—High School.

Roachdale—High School.

Roann—High School.

Roanoke—High School.

Rochester—High School.

Rockport—High School.

Rockville—High School.

Rolling Prairie—

High School.

*Interlaken School.*

Rome City—High School.

Romney—High School.

Rosedale—High School.

Rossville—High School.

Royal Center—High School.

Rushville—High School.

Russellville—High School.

Russellville—High School.<sup>1</sup>

St. Joe—High School.<sup>1</sup>

St. Mary-of-the-Woods—*A Academy.*

St. Paul—High School.<sup>1</sup>

Salem—High School.

Sandborn—High School.

Saratoga—High School.<sup>1</sup>

Scircleville—High School.<sup>1</sup>

Scottsburg—High School.

Selma—High School.

Seymour—High School.

Sharpsville—High School.

Shelbyville—High School.

Sheridan—High School.

Shipshewana—High School.

Shoals—High School.

Silver Lake—High School.

Smithville—High School.

South Bend—

High School.

*St. Joseph's College.*

South Milford—High School.

Southport—High School.

South Whitley—High School.<sup>1</sup>

Spencer—High School.

Spencerville—High School.

Spiceland—*A Academy.*

Star City—High School.

Staunton—High School.

Stewartsville—High School.

Stilesville—High School.<sup>1</sup>

Stillwell—High School.

Stinesville—High School.

Stockwell—High School.

Straughn—High School.<sup>1</sup>

Sullivan—High School.

Summitville—High School.

Swayzee—High School.

Sweetser—High School.<sup>1</sup>

Switz City—High School.

Syracuse—High School.

Tangler—High School.

Taylorville—German Township High School.

Tell City—High School.

Terre Haute—

Garfield High School.

Glenn Township High School.

State Normal High School.

*St. Joseph's Academy.*

Wiley High School.

Thorntown—High School.

Tipton—

High School.

*St. Joseph's Academy.*

Topeka—High School.

Trafalgar—High School.

Twelve Mile—High School.

Union City—

High School.

Jackson High School.

Wayne High School.

Union Mills—High School.

<sup>1</sup> Commission expired June 30, 1915.

University Heights— <i>Indiana Central University Academy.</i>	Westfield—High School.
Upland—	West Lafayette—High School.
High School.	West Lebanon—High School. <sup>1</sup>
<i>Taylor University.</i>	West Middleton—High School. <sup>1</sup>
Urbana—High School.	West Newton—High School.
Valley Mills—High School.	Westpoint—High School. <sup>1</sup>
Vallonia—High School.	Westport—High School. <sup>1</sup>
Valparaiso—	West Terre Haute—High School. <sup>1</sup>
High School.	Westville—High School. <sup>1</sup>
<i>University.</i>	Wheatfield—High School.
Van Buren—High School.	Wheatland—High School.
Veedersburg—High School.	Wheeler—High School.
Versailles—High School.	Whiteland—High School.
Vevay—High School.	Whitestown—High School. <sup>1</sup>
Vincennes—	White Water—High School.
High School	Whiting—High School.
<i>St. Rose Academy.</i>	Wilkinson—High School. <sup>1</sup>
Wabash—	Williamsburg—High School.
Chippewa High School.	Williamsport—High School. <sup>1</sup>
Linlawn High School.	Winamac—High School.
Wadesville—High School.	Winchester—
Wakarusa—High School. <sup>1</sup>	High School.
Waldron—High School.	Lincoln High School.
Walkerton—High School. <sup>1</sup>	McKinley High School.
Wallace—High School.	Windfall—High School.
Walton—High School. <sup>1</sup>	Wingate—High School.
Wanamaker—New Bethel High School.	Winona Lake— <i>Winona College.</i>
Wanatah—High School.	Winslow—High School. <sup>1</sup>
Warren—High School.	Wolcott—High School.
Warsaw—High School.	Wolcottville—High School.
Washington—High School.	Wolfake—High School. <sup>1</sup>
Waterloo—High School.	Woodburn—Maumee Township High School.
Waveland—High School.	Worthington—High School.
Wawaka—High School.	Yorktown—High School.
Waynetown—High School.	Young America—High School.
West Baden—High School.	Zionsville—High School.

## IOWA.

Approved by the State board of education and accredited by the Iowa State University for the year 1915-16.

	Units.
University admission requirements.....	15
Prescribed units:	
English.....	3
Mathematics.....	2½
History.....	1
Foreign language.....	2
Electives.....	6½
Ackley—High School.	Aurella—High School.
Adair—High School.	Avoca—High School.
Adel—High School.	Bancroft— <i>St. John's Parochial School.</i>
Afton—High School.	Battle Creek—High School.
Agency—High School.	Bayard—High School.
Albia—High School.	Bedford—High School.
Alden—High School.	Belle Plaine—High School.
Algona—High School.	Bellevue—High School.
Allerton—High School.	Belmond—High School.
Alta—High School.	Blairtown—High School.
Alton—High School.	Blockton—High School.
Akron—High School.	Bloomfield—High School.
Ames—High School.	Boone—High School.
Anamosa—High School.	Brighton—High School.
Anita—High School.	Britt—High School.
Arthur—High School.	Brooklyn—High School.
Atlantic—High School.	Buffalo Center—High School.
Audubon—High School.	Burlington—High School.

<sup>1</sup> Commission expired June 30, 1915.



- Burt—High School.  
 Calmar—High School.  
 Carroll—High School.  
 Casey—High School.  
 Castana—High School.  
 Cedar Falls—  
     High School.  
     Iowa State Teachers College, Training Depart-  
     ment.  
 Cedar Rapids—High School.  
 Center Point—High School.  
 Central City—High School.  
 Centerville—High School.  
 Chariton—High School.  
 Charles City—High School.  
 Charter Oak—High School.  
 Cherokee—  
     High School.  
     *Mount St. Mary's.*  
 Cincinnati—High School.  
 Clarinda—High School.  
 Clarksville—High School.  
 Clarence—High School.  
 Clarion—High School.  
 Clearfield—High School.  
 Clear Lake—High School.  
 Clinton—  
     High School.  
     *Mount St. Claire Academy.*  
 Coggon—High School.  
 Coin—High School.  
 Colfax—High School.  
 College Springs—High School.  
 Columbus Junction—High School.  
 Colo—High School.  
 Conrad—High School.  
 Coon Rapids—High School.  
 Corning—High School.  
 Correctionville—High School.  
 Corydon—High School.  
 Council Bluffs—High School.  
 Cresco—High School.  
 Creston—High School.  
 Cumberland—High School.  
 Dallas Center—High School.  
 Danbury—High School.  
 Davenport—  
     High School.  
     *Immaculate Conception Academy.*  
     *St. Ambrose Collegiate Academy.*  
     *St. Katherine's School.*  
 Dayton—High School.  
 Decorah—High School.  
 Deep River—High School.  
 Denmark—High School.  
 Denison—  
     High School.  
     *Denison Normal School.*  
 Des Moines—  
     East High School.  
     North High School.  
     West High School.  
     *Grand View Academy.*  
     *St. John's High School.*  
     *St. Joseph's Academy.*  
 De Witt—High School.  
 Dexter—High School.
- Dows—High School.  
 Dubuque—  
     *College High School.*  
     High School.  
     *Mount St. Joseph's Academy.*  
     *St. Joseph's Academy.*  
 Dunlap—High School.  
 Dysart—High School.  
 Eagle Grove—  
     High School.  
     *Sacred Heart High School.*  
 Earlham—High School.  
 Eddyville—High School.  
 Eldon—High School.  
 Eldora—High School.  
 Elkader—High School.  
 Elliott—High School.  
 Emerson—High School.  
 Emmetsburg—High School.  
 Epworth—*Seminary.*  
 Essex—High School.  
 Estherville—High School.  
 Everly—Consolidated High School.  
 Extra—High School.  
 Fairfield—  
     High School.  
     *Parsons College Academy.*  
 Farmington—High School  
 Farragut—High School.  
 Fayette—High School.  
 Fonda—High School.  
 Forest City—  
     High School.  
     *Waldorf College.*  
 Fort Dodge—High School.  
 Fort Madison—High School.  
 Fremont—High School.  
 Galva—High School.  
 Garden Grove—High School.  
 Garner—High School.  
 George—High School.  
 Gilmore City—High School.  
 Gladbrook—High School.  
 Glenwood—High School.  
 Glidden—High School.  
 Grand Junction—High School.  
 Greene—High School.  
 Greenfield—High School.  
 Griswold—High School.  
 Grinnell—High School.  
 Grundy Center—High School.  
 Guthrie Center—High School.  
 Guttenberg—High School.  
 Hamburg—High School.  
 Hampton—High School.  
 Harlan—High School.  
 Hartley—High School.  
 Hawarden—High School.  
 Hedrick—High School.  
 Hiteman—High School.  
 Holstein—High School.  
 Hopkinton—*Lenox College Academy.*  
 Hubbard—High School.  
 Hull—High School.  
 Humboldt—High School.  
 Humeston—High School.  
 Ida Grove—High School.

Independence—High School.  
 Indianola—High School.  
 Inwood—High School.  
 Iowa City—  
     High School.  
     *Iowa City Academy.*  
     *St. Mary's High School.*  
     *St. Patrick's High School.*  
 Iowa Falls—  
     High School.  
     *Ellsworth Academy.*  
 Ireton—High School.  
 Jefferson—High School.  
 Jewell—  
     High School.  
     *Jewell Lutheran College.*  
 Keokuk—  
     High School.  
     *St. Peter's High School.*  
 Keosauqua—High School  
 Keota—High School.  
 Kingsley—High School.  
 Knoxville—High School.  
 Lake City—High School.  
 Lake Mills—High School.  
 Lake Park—High School.  
 Lamoni—High School.  
 Lansing—High School.  
 Laporte City—High School.  
 Larchwood—High School.  
 Laurens—High School.  
 Lehigh—High School.  
 Le Mars—  
     High School.  
     *Western Union College Academy.*  
 Lenox—High School.  
 Leon—High School.  
 Lisbon—High School.  
 Livermore—High School.  
 Logan—High School.  
 Lohrville—High School.  
 Luverne—High School.  
 Lyons—  
     High School.  
     *Our Lady of Angels Academy.*  
 Malvern—High School.  
 Manchester—High School.  
 Manilla—High School.  
 Manning—High School.  
 Manson—High School.  
 Mapleton—High School.  
 Maquoketa—High School.  
 Marathon—High School.  
 Marcus—High School.  
 Marengo—High School.  
 Marion—High School.  
 Marshalltown—High School.  
 Mason City—High School.  
 McGregor—High School.  
 Mechanicsville—High School.  
 Mediapolis—High School.  
 Milford—High School.  
 Milo—High School.  
 Missouri Valley—High School.  
 Mondamin—High School.

Monona—High School.  
 Monroe—High School.  
 Montezuma—High School.  
 Monticello—High School.  
 Morning Sun—High School.  
 Moulton—High School.  
 Mount Ayr—High School.  
 Mount Pleasant—High School.  
 Mount Vernon—High School.  
 Murray—High School.  
 Muscatine—High School.  
 Nashua—High School.  
 Neola—High School.  
 Nevada—High School.  
 Newell—High School.  
 New Hampton—High School.  
 New London—High School.  
 New Providence—High School.  
 New Sharon—High School.  
 Newton—High School.  
 Nora Springs—High School.  
 North English—High School.  
 Northwood—High School.  
 Oakland—High School.  
 Odebolt—High School.  
 Oelwein—High School.  
 Ogden—High School.  
 Olin—High School.  
 Onawa—High School.  
 Orange City—  
     High School.  
     *North Western Classical Academy.*  
 Orient—High School.  
 Osage—  
     *Cedar Valley Seminary.*  
     High School.  
 Osceola—High School.  
 Oskaloosa—  
     High School.  
     *Penn College Academy.*  
 Ottumwa—High School.  
 Oxford—High School.  
 Panora—High School.  
 Parkersburg—High School.  
 Paullina—High School.  
 Pella—High School.  
 Perry—High School.  
 Pocahontas—High School.  
 Pomeroy—High School.  
 Postville—High School.  
 Prairie City—High School.  
 Preston—High School.  
 Primghar—High School.  
 Radcliffe—High School.  
 Randolph—High School.  
 Red Oak—High School.  
 Reinbeck—High School.  
 Riceville—High School.  
 Riverton—High School.  
 Rockford—High School.  
 Rock Rapids—High School.  
 Rock Valley—High School.  
 Rockwell City—High School.  
 Roland—High School.  
 Rolfe—High School.

Ruthven—High School.  
 Sabula—High School.  
 Sac City—High School.  
 St. Ansgar—High School.  
 Salem—High School.  
 Salix—High School.  
 Sanborn—High School.  
 Schaller—High School.  
 Seymour—High School.  
 Sheffield—High School.  
 Shelby—High School.  
 Sheldon—High School.  
 Shell Rock—High School.  
 Shenandoah—High School.  
 Sibley—High School.  
 Sidney—High School.  
 Sigourney—High School.  
 Sioux Center—High School.  
 Sioux City—  
     *Cathedral School.*  
     High School.  
 Sioux Rapids—High School.  
 Sloan—High School.  
 Spencer—High School.  
 Spirit Lake—High School.  
 Springfield—High School.  
 Stanton—High School.  
 Stanwood—High School.  
 State Center—High School.  
 Storm Lake—High School.  
 Story City—High School.  
 Strawberry Point—High School.  
 Stuart—High School.  
 Sumner—High School.  
 Sutherland—High School.  
 Tabor—High School.  
 Tama—High School.  
 Tipton—High School.

Toledo—High School.  
 Traer—High School.  
 Union—High School.  
 University Park—*Central Holiness Academy.*  
 Ute—High School.  
 Vall—High School.  
 Valley Junction—High School.  
 Victor—High School.  
 Villisca—High School.  
 Vinton—  
     High School.  
     *Tilford Academy.*  
 Walker—High School.  
 Walnut—High School.  
 Wapello—High School.  
 Washington—High School.  
 Waterloo—  
     (East)—High School.  
     (West)—High School.  
 Waukon—High School.  
 Waverly—  
     High School.  
     *Waiburg College Academy.*  
 Webster City—High School.  
 Wellman—High School.  
 West Bend—High School.  
 West Branch—High School.  
 West Liberty—High School.  
 West Side—High School.  
 West Union—High School.  
 What Cheer—High School.  
 Whiting—High School.  
 Williamsburg—High School.  
 Wilton—High School.  
 Winfield—High School.  
 Winterset—High School.  
 Woodbine—High School.

## KANSAS.

Accredited by the State Board of Education and the University of Kansas, for the year 1915-16.

	Units.
University admission requirements.....	15
No subjects prescribed, but the following (together with the indicated unit values) recommended:	
English.....	3
Mathematics.....	2½
Foreign language.....	3
Science.....	2
History and social science.....	1
Electives.....	3½

("All students graduating from high schools in class A or class B are admitted to the State institutions without examination upon presentation of a certificate showing that they have completed at least 15 units of regular high-school work.")

### CLASS A.

Abilene—High School.  
 Alma—High School.  
 Altamont—Labette County High School.  
 Anthony—High School.  
 Argentine—High School.  
 Arkansas City—High School.  
 Ashland—High School.  
 Atchison—High School.  
 Augusta—High School.  
 Belleville—High School.  
 Beloit—High School.  
 Burlington—High School.

Caney—High School.  
 Chanute—High School.  
 Chapman—Dickinson County High School.  
 Cherokee—Crawford County High School.  
 Cherryvale—High School.  
 Clay Center—Clay County High School.  
 Coffeyville—High School.  
 Colby—Sumner County High School.  
 Columbus—Cherokee County High School.  
 Concordia—High School.  
 Cottonwood Falls—Chase County High School.  
 Council Grove—High School.

Dodge City—High School.  
 Effingham—Atchison County High School.  
 El Dorado—High School.  
 Ellsworth—High School.  
 Emporia—High School.  
 Eskridge—High School.  
 Eureka—High School.  
 Fort Scott—High School.  
 Frankfort—High School.  
 Fredonia—High School.  
 Galena—High School.  
 Garden City—High School.  
 Garnett—High School.  
 Girard—High School.  
 Goodland—Sherman County High School.  
 Great Bend—High School.  
 Greensburg—Kloma County High School.  
 Hays—High School.  
 Herrington—High School.  
 Hiawatha—High School.  
 Holington—High School.  
 Holton—High School.  
 Horton—High School.  
 Humboldt—High School.  
 Hutchinson—High School.  
 Independence—Montgomery County High School.  
 Iola—High School.  
 Jewell City—High School.  
 Junction City—High School.  
 Kansas City—  
     High School.  
     Sumner High School (colored).  
 Kingman—High School.  
 Kinsley—High School.  
 Larned—High School.  
 Lawrence—High School.  
 Leavenworth—High School.  
 Lincoln—High School.

Lindsborg—High School.  
 Lyons—High School.  
 Manhattan—High School.  
 Marion—High School.  
 Marysville—High School.  
 McPherson—High School.  
 Minneapolis—High School.  
 Neodesha—High School.  
 Newton—High School.  
 Nickerson—Reno County High School.  
 Norton—County High School.  
 Oberlin—Decatur County High School.  
 Olathe—High School.  
 Osborne—High School.  
 Ottawa—High School.  
 Paola—High School.  
 Parsons—High School.  
 Peabody—High School.  
 Pittsburg—High School.  
 Pratt—High School.  
 Rosedale—High School.  
 Russell—High School.  
 Sabetha—High School.  
 St. John—High School.  
 Salina—High School.  
 Seneca—High School.  
 Smith Center—High School.  
 Stafford—High School.  
 Sterling—High School.  
 Topeka—High School.  
 Valley Falls—High School.  
 Wa Keeney—Trego County High School.  
 Washington—High School.  
 Wellington—Sumner County High School.  
 Wichita—High School.  
 Winfield—High School.  
 Yates Center—High School.

CLASS B—RANK I.<sup>1</sup>

Alden—High School.  
 Almena—High School.  
 Alta Vista—High School.  
 Altoona—High School.  
 Argonia—Dixon Township High School.  
 Attica—High School.  
 Atwood—Rawlins County High School.  
 Axtell—High School.  
 Baldwin—High School.  
 Belle Plaine—High School.  
 Blue Rapids—High School.  
 Bonner Springs—High School.  
 Bucklin—High School.  
 Burlingame—High School.  
 Caldwell—High School.  
 Canton—High School.  
 Cawker City—High School.  
 Cedar Vale—High School.  
 Centralia—High School.  
 Cimarron—High School.  
 Clearwater—High School.  
 Clifton—High School.  
 Coldwater—High School.  
 Douglass—High School.

Downs—High School.  
 Ellinwood—High School.  
 Ellis—High School.  
 Erie—High School.  
 Fairview—High School.  
 Florence—High School.  
 Formoso—High School.  
 Fowler—High School.  
 Frontenac—High School.  
 Gae—High School.  
 Halstead—High School.  
 Harper—High School.  
 Hartford—High School.  
 Highland—High School.  
 Howard—High School.  
 Kincaid—High School.  
 Lakin—High School.  
 Liberal—High School.  
 Lyndon—High School.  
 Macksville—High School.  
 Mankato—High School.  
 McLouth—High School.  
 Meade—High School.  
 Medicine Lodge—High School.

<sup>1</sup> Four-year high schools which are accredited, but which on account of financial and other considerations do not provide courses of study covering all departments of secondary work or in which there is not the same degree of permanency and efficiency in general administration.

Moline—High School.  
 Ness City—High School.  
 Oakley—High School.  
 Onaga—High School.  
 Osage City—High School.  
 Ossawatimie—High School.  
 Oskaloosa—High School.  
 Phillipsburg—High School.  
 Plainville—High School.  
 Pleasanton—High School.  
 Reading—High School.  
 Robinson—High School.  
 Rose Hill—High School.  
 Rossville—High School.  
 Sedan—High School.

Sedgwick—High School.  
 Solomon—High School.  
 Stockton—High School.  
 Tonganoxie—High School.  
 Troy—High School.  
 Wamego—High School.  
 Waterville—High School.  
 Wathena—High School.  
 Wellsville—High School.  
 Wetmore—High School.  
 White Cloud—High School.  
 White Water—High School.  
 Williamsburg—High School.  
 Wilson—Ellsworth County High School.

## CLASS B—RANK II.

Alton—High School.  
 Atlanta—High School.  
 Anthony—Spring Township High School.  
 Basehor—High School.  
 Belpre—High School.  
 Beverly—High School.  
 Bronson—High School.  
 Brookville—High School.  
 Buffalo—High School.  
 Burden—High School.  
 Burns—High School.  
 Burr Oak—High School.  
 Burrton—High School.  
 Carbondale—High School.  
 Chase—High School.  
 Cheney—High School.  
 Circleville—High School.  
 Claffin—High School.  
 Clyde—High School.  
 Colony—High School.  
 Conway Springs—High School.  
 Cunningham—High School.  
 Delphos—High School.  
 Derby—High School.  
 Dexter—High School.  
 Dighton—Lane County High School.  
 Easton—High School.  
 Edwardsville—High School.  
 Elwood—High School.  
 Englewood—High School.  
 Everest—High School.  
 Geneseo—High School.  
 Glasco—High School.  
 Glen Elder—High School.  
 Goddard—High School.  
 Greenleaf—High School.  
 Gypsum—High School.  
 Hamilton—High School.  
 Hanover—High School.  
 Harveyville—High School.  
 Hazelton—High School.  
 Hill City—High School.  
 Hillsboro—High School.  
 Hoxie—Sheridan County High School.  
 Jetmore—High School.  
 Klowa—High School.  
 La Crosse—High School.  
 La Cygne—High School.  
 La Harpe—High School.  
 Lansing—High School.  
 Latham—High School.  
 Lebanon—High School.  
 Lebo—High School.

Leon—High School.  
 Le Roy—High School.  
 Lewis—High School.  
 Linwood—High School.  
 Little River—High School.  
 Logan—High School.  
 Lucas—High School.  
 Luray—High School.  
 Madison—High School.  
 Marquette—High School.  
 Melvern—High School.  
 Meriden—High School.  
 Moran—High School.  
 Morrill—High School.  
 Mound City—High School.  
 Moundridge—High School.  
 Mount Hope—High School.  
 Mulberry—High School.  
 Mulvane—High School.  
 Natoma—High School.  
 Neosho Falls—High School.  
 Nortonville—High School.  
 Norwich—High School.  
 Oakland—High School.  
 Oswego—High School.  
 Overbrook—High School.  
 Oxford—High School.  
 Pawnee Rock—High School.  
 Perry—High School.  
 Pomona—High School.  
 Protection—High School.  
 Randolph—High School.  
 St. Francis—Cheyenne County High School.  
 St. Marys—High School.  
 Scott—Scott County High School.  
 Severance—High School.  
 Severy—High School.  
 Sharon—High School.  
 Sharon Springs—High School.  
 Soldier—High School.  
 Spearville—High School.  
 Spivey—High School.  
 Spring Hill—High School.  
 Syracuse—High School.  
 Toronto—High School.  
 Towanda—High School.  
 Tribune—Greeley County High School.  
 Udall—High School.  
 Valley Center—High School.  
 Westmoreland—High School.  
 White City—High School.  
 Winchester—High School.

## CLASS B—RANK III.

Admire—High School.  
 Americus—High School.  
 Andover—High School.  
 Assaria—High School.  
 Barnard—High School.  
 Basine—High School.  
 Beattie—High School.  
 Benedict—High School.  
 Blue Mound—High School.  
 Brownell—High School.  
 Bunker Hill—High School.  
 Chetopa—High School.  
 Corning—High School.  
 Courtland—High School.  
 Cuba—High School.  
 Edna—High School.  
 Elsmore—High School.  
 Enterprise—High School.  
 Esbon—High School.  
 Eudora—High School.  
 Garden Plain—High School.  
 Gardner—High School.  
 Goff—High School.  
 Grenola—High School.  
 Haven—High School.  
 Havensville—High School.  
 Hope—High School.  
 Hugoton—High School.  
 Ingalls—High School.  
 Irving—High School.  
 Jamestown—High School.  
 Kipp—High School.  
 Lecompton—High School.  
 Leoti—Wichita County High School.  
 Longton—High School.  
 Lost Springs—High School.  
 Maize—High School.  
 Maple Hill—High School.  
 McCracken—High School.  
 McCune—High School.  
 Merriam—High School.  
 Mildred—High School.  
 Milton—High School.

Minneola—High School.  
 Morehead—High School.  
 Mound Valley—High School.  
 Muscotah—High School.  
 Neosho Rapids—High School.  
 New Ulysses—Grant County High School.  
 Oneida—High School.  
 Ozawie—High School.  
 Palco—High School.  
 Portis—High School.  
 Potwin—High School.  
 Powhattan—High School.  
 Preston—High School.  
 Quenemo—High School.  
 Quincy—High School.  
 Quinter—High School.  
 Ramona—High School.  
 Randall—High School.  
 Ransom—High School.  
 Redfield—High School.  
 Republic—High School.  
 Rock Creek—High School.  
 Russell Springs—High School.  
 Savonburg—High School.  
 Scandia—High School.  
 Scranton—High School.  
 Silver Lake—High School.  
 Stark—High School.  
 Summerfield—High School.  
 Sylvan Grove—High School.  
 Tescott—High School.  
 Thayer—High School.  
 Utica—High School.  
 Vermilion—High School.  
 Viola—High School.  
 Virgil—High School.  
 Waldo—High School.  
 Walnut—High School.  
 Walton—High School.  
 Weir—High School.  
 Whiting—High School.  
 Winona—High School.

Academies and private institutions accredited, but not classified:

Baldwin—*Baker University Academy.*  
 Concordia—*Nazareth Academy.*  
 Hesston—*Academy.*  
 Kansas City—*Catholic High School.*  
 Leavenworth—  
     *Cathedral High School.*  
     *St. Mary's Academy.*

Newton—*Bethel College Academy.*  
 Ottawa—*University Academy.*  
 Paola—*Ursuline Academy.*  
 Salina—*Sacred Heart Academy.*  
 Topeka—*Washburn College Academy.*  
 Wichita—*Friends University Academy.*  
 Winfield—*Southwestern Academy.*

## KENTUCKY.

Accredited by the University of Kentucky, January, 1918.

	Units.
Admission requirements.....	15
Prescribed units:	
English.....	3
Mathematics.....	2½
Foreign language.....	4
History.....	1
Science.....	1
Electives.....	3½

## CLASS A.

Ashland—High School  
 Auburn—County High School.  
 Augusta—High School.  
 Barboursville—  
     *Baptist Institute.*  
     *Union College.*  
 Bowling Green—  
     High School.  
     *Ogden College.*  
     Western Kentucky Normal.  
 Campbellville—*Russell Creek Academy.*  
 Carlisle—High School.  
 Carrollton—High School.  
 Catlettsburg—High School.  
 Central City—High School.  
 Clinton—*Martin University School.*  
 Columbia—*Lindsey-Wilson.*  
 Corydon—High School.  
 Covington—High School.  
 Cynthiaana—High School.  
 Dawson Springs—High School.  
 Dayton—High School.  
 Elizabethtown—Hardin County High School.  
 Elktion—  
     High School.  
     *Vanderbilt Training School.*  
 Falmouth—High School.  
 Flemingsburg—High School.  
 Frankfort—High School.  
 Franklin—High School.  
 Frenchburg—*High School.*  
 Fulton—High School.  
 Georgetown—  
     *Cardome Academy.*  
     High School.  
 Glasgow—High School.  
 Greenville—High School.  
 Hardinsburg—County High School.  
 Harrodsburg—High School.  
 Hartford—High School.  
 Henderson—High School.  
 Hopkinsville—High School.  
 Jackson—*Collegiate Institute.*  
 La Grange—High School.  
 Lancaster—High School.  
 Lawrenceburg—  
     City High School.  
     County High School.  
 Lebanon—High School.  
 Lexington—  
     *Hamilton College.*  
     High School.  
     *Sayre College.*  
 London—*Sue Bennet Memorial.*  
 Louisa—High School.

Louisville—  
     Girls' High School.  
     *Kentucky Home School for Girls.*  
     Male High School.  
     *St. Xavier College.*  
     *Semple Collegiate School.*  
     *Training School.*  
 Ludlow—High School.  
 Lyndon—*Kentucky Military Institute.*  
 Madisonville—High School.  
 Mayfield—High School.  
 Maysville—High School.  
 Middlesboro—High School.  
 Midway—  
     High School.  
     *Kentucky Female Orphan School.*  
 Millersburg—  
     *Female College.*  
     *Military Institute.*  
 Morganfield—High School.  
 Mount Sterling—High School.  
 Murray—High School.  
 Nazareth—*Nazareth Academy.*  
 Nerinx—*Loretto Academy.*  
 Newport—  
     *Academy Notre Dame of Providence.*  
     Bellevue High School.  
     High School.  
 Nicholasville—High School.  
 Owensboro—High School.  
 Owenton—High School.  
 Paducah—High School.  
 Paris—High School.  
 Pikeville—*Academy.*  
 Princeton—High School.  
 Richmond—  
     Caldwell High School.  
     Eastern Kentucky Normal.  
     Model High School.  
 Russellville—*Bethel College, Preparatory Department.*  
 St. Mary's—*College.*  
 Shelbyville—  
     High School.  
     *Science Hill.*  
 Somerset—High School.  
 Springfield—High School.  
 Stanford—High School.  
 Stanton—*College.*  
 Sturgis—High School.  
 Versailles—*Margaret College.*  
 Williamsburg—*Cumberland College.*  
 Wilmore—*Ashbury College Academy.*  
 Winchester—High School.

CLASS B.<sup>1</sup>

Adairville—High School.  
 Alexandria—County High School.  
 Arlington—High School.  
 Bardstown—High School.  
 Barlow—High School.  
 Beaver Dam—Western Kentucky Seminary.  
 Bedford—Trimble County High School.  
 Benton—High School.  
 Bloomfield—High School.  
 Brandenburg—County High School.  
 Brooksville—High School.  
 Burlington—County High School.  
 Butler—High School.  
 Cadiz—High School.  
 Cathoun—High School.  
 Campbellsburg—High School.  
 Campbellsville—County High School.  
 Clay—High School.  
 Clinton—County High School.  
 Cloverport—High School.  
 Columbia—High School.  
 Danville—High School.  
 Dixon—High School.  
 Dry Ridge—County High School.  
 Earlington—High School.  
 Edmonton—County High School.  
 Eminence—High School.  
 Erlanger—High School.  
 Fordsville—High School.  
 Fort Thomas—Highlands High School.  
 Franklin—Training School.  
 Grayson—High School.  
 Guthrie—High School.  
 Harlan—County High School.  
 Hawesville—Beechmont High School.  
 Hazel Green—Academy.  
 Heath—County High School.  
 Hickman—High School.  
 Hindman—Settlement School.  
 Hodgenville—High School.  
 Horse Cave—High School.  
 Independence—High School.  
 Junction City—High School.  
 La Center—County High School.  
 Leitchfield—High School.  
 Lewisburg—County High School.  
 Lexington—Picadome—County High School.

Little Rock—Graded High School.  
 Livermore—High School.  
 London—Graded High School.  
 Louisville—Holy Rosary Academy.  
 Marion—High School.  
 Mayslick—County High School.  
 Minerva—County High School.  
 Monticello—High School.  
 Morehead—Normal School.  
 Morgantown—High School.  
 Mount Sterling—County High School.  
 Mount Vernon—High School.  
 Munfordsville—High School.  
 New Castle—High School.  
 Nicholasville—Boys' School.  
 North Middletown—Classical and Business College.  
 Owensboro—County High School.  
 Owingsville—City High School.  
 Paintsville—  
     High School.  
     Sandy Valley Seminary.  
 Pembroke—High School.  
 Pineville—High School.  
 Providence—High School.  
 Richmond—Madison Institute.  
 Salyersville—Magoffin Institute.  
 Sedalia—High School.  
 Sebres—High School.  
 Sharpsburg—High School.  
 Smiths Grove—County High School.  
 St. Helens—High School.  
 Scottsville—High School.  
 Tompkinsville—High School.  
 Uniontown—County High School.  
 Utica—County High School.  
 Vanceburg—County High School.  
 Versailles—High School.  
 Vine Grove—High School.  
 Walton—County High School.  
 Warsaw—High School.  
 Water Valley—County High School.  
 West Liberty—High School.  
 Whitesville—County High School.  
 Williamstown—High School.  
 Wingo—High School.  
 Wickliffe—High School.

## LOUISIANA.

Approved by the State board of education and accredited by the University of Louisiana for the year 1915-16.

	Units.
University admission requirements.....	14
Prescribed units:	
English.....	3
Mathematics.....	2½
Foreign language.....	2
History.....	1
Electives.....	5½

Abbeville—High School.  
 Alexandria—High School.  
 Amite—High School.  
 Arcadia—High School.  
 Ashland—High School.

Athens—High School.  
 Bastrop—High School.  
 Baton Rouge—  
     Central High School.  
     High School.

<sup>1</sup> The requirements for approval of schools of this class are practically the same as those for the Class A schools, the main difference being that they require but two teachers who must devote their full time to high-school subjects. The session is six weeks longer than that of the Class A schools.



Baywood—High School.  
Benton—High School.  
Bernice—High School.  
Bienville—High School.  
Bogalusa—High School.  
Boyce—High School.  
Breaux Bridge—High School.  
Brusly—High School.  
Bunkie—High School.  
Calhoun—High School.  
Campiti—High School.  
Catara—Grand Prairie High School.  
Cheneyville—High School.  
Choudrant—High School.  
Clinton—High School.  
Colfax—High School.  
Colcomb—Romeville High School.  
Columbia—High School.  
Cotton Valley—High School.  
Coushatta—High School.  
Covington—High School.  
Crowley—High School.  
Deerford—High School.  
Delhi—High School.  
Denham Springs—High School.  
De Quincy—High School.  
De Ridder—High School.  
Dodson—High School.  
Donaldsonville—High School.  
Doyline—High School.  
Dubach—High School.  
Dutchtown—High School.  
Ebenezer—High School.  
Eros—High School.  
Eunice—High School.  
Evergreen—High School.  
Farmerville—High School.  
Florien—High School.  
Forest Hill—High School.  
Franklin—High School.  
Franklinton—High School.  
Georgetown—High School.  
Gibbsland—High School.  
Goldonna—High School.  
Gonzales—High School.  
Grand Cane—High School.  
Grayson—High School.  
Gretna—High School.  
Gueydan—High School.  
Hammond—High School.  
Harrisonburg—High School.  
Haughton—High School.  
Haynesville—High School.  
Homer—High School.  
Hope Villa—Oak Grove High School.  
Hornbeck—High School.  
Houma—Terrebonne High School.  
Independence—High School.  
Iota—High School.  
Jackson—High School.  
Jeanerette—High School.  
Jeno—High School.  
Jennings—High School.  
Kinder—High School.  
Labadieville—High School.  
Lake Arthur—High School.  
Lake Charles—High School.

Lake Providence—High School.  
Lecompte—High School.  
Leesville—  
    Bellevue High School.  
    High School.  
Lillie—High School.  
Logansport—High School.  
Longstreet—High School.  
Lutcher—High School.  
Mansfield—High School.  
Mansura—High School.  
Many—High School.  
Marion—High School.  
Marksville—High School.  
Marthaville—High School.  
Melville—High School.  
Mer Rouge—High School.  
Merryville—High School.  
Minden—High School.  
Mineral—Wallace High School.  
Monroe—High School.  
Monterey—Central High School.  
Morgan City—High School.  
Morse—High School.  
Napoleonville—High School.  
New Iberia—High School.  
Oakdale—High School.  
Opelousas—High School.  
Patterson—High School.  
Pelican—High School.  
Pitkin—High School.  
Plain Dealing—High School.  
Plaquemine—High School.  
Pleasant Hill—High School.  
Pollock—High School.  
Ponchatoula—High School.  
Pride—High School.  
Rayne—High School.  
Ravenville—High School.  
Reserve—High School.  
Robelin—High School.  
Saline—High School.  
Shreveport—High School.  
Simsboro—High School.  
Slidell—High School.  
Spring Hill—High School.  
Stonewall—High School.  
St. Francisville—High School.  
St. Joseph—High School.  
St. Martinville—High School.  
Sulphur—High School.  
Tallulah—High School.  
Thibodaux—High School.  
Verda—High School.  
Vidalia—High School.  
Vidrine—High School.  
Ville Platte—High School.  
Vinton—High School.  
Vivian—High School.  
Washington—High School.  
Welsh—High School.  
Westlake—High School.  
White Castle—High School.  
Winnfield—High School.  
Winnsboro—High School.  
Zachary—High School.  
Zwolle—High School.

## Supplementary list of secondary schools accredited by the University of Louisiana.

"Graduates of each of the following secondary schools who have completed the four-year high-school course, or the equivalent, with admission credits amounting to 14 units, will be admitted to the freshman class."

Baton Rouge—*St. Vincent's Academy*.  
 Donaldsonville—*St. Joseph's Commercial Institute*.  
 Gulfport—*Gulf Coast Military Academy*.  
 Houma—*Lorton Preparatory School*.  
 Kentwood—High School.  
 Monroe—Monroe City High School.  
 New Orleans—  
   Boys' High School.  
   Girls' High School.  
   *Chenet Institute*.

New Orleans—Continued.  
   *Ferrell's School*.  
   *Harris Preparatory School*.  
   *Holy Cross College*.  
   *Home Institute*.  
   *Isidore Newman Manual Training School*.  
   *Rugby Academy*.  
 New Roads—*Poydras Academy*.  
 Port Gibson—*Chamberlain-Hunt Academy*.  
 Washington—*Jefferson Military Academy*.

## MAINE.

"Class A" schools approved by the State superintendent of schools, for the year 1915-16. "Graduates of schools in class A may be admitted (to the University of Maine) upon their school records, provided they pursue a course of study including all the subjects required for admission to the college that they propose to enter, and a sufficient number of elective subjects to make up a total of 14 units."

## Prescribed units:

English.....	3
Mathematics.....	2½
Foreign language.....	4
History.....	1
Elective.....	3½

Abbot Village—High School.  
 Addison—High School.  
 Albion—High School.  
 Alfred—High School.  
 Ashland—High School.  
 Athens—*Somerset Academy*.  
 Auburn—High School.  
 Augusta—High School.  
 Bangor—High School.  
 Bar Harbor—Eden High School.  
 Bath—High School.  
 Belfast—High School.  
 Belgrade—High School.  
 Berwick—High School.  
 Bethel—*Gould's Academy*.  
 Biddeford—High School.  
 Bingham—High School.  
 Bluehill—*Bluehill-George Stevens Academy*.  
 Boothbay Harbor—High School.  
 Bowdoinham—High School.  
 Bradford—High School.  
 Brewer—High School.  
 Bridgton—High School.  
 Bridgewater Center—*Bridgewater Classical Institute*.  
 Bristol—High School.  
 Brooklin—High School.  
 Brooks—High School.  
 Brooksville—High School.  
 Brownville—High School.  
 Brunswick—High School.  
 Bryant Pond—Woodstock High School.  
 Buckfield—High School.  
 Buxton Center—Buxton High School.  
 Bucksport—*East Maine Conference Seminary*.  
 Calais—*Academy*.  
 Camden—High School.  
 Caribou—High School.

Casco—High School.  
 Castine—High School.  
 Charleston—*Higgins Classical Institute*.  
 Cherryfield—*Cherryfield Academy*.  
 Clinton—High School.  
 Columbia Falls—High School.  
 Corinna—*Corinna Union Academy*.  
 Cornish—High School.  
 Cumberland Center—*Greeley Institute*.  
 Danforth—High School.  
 Deer Isle—High School.  
 Dexter—High School.  
 Dixfield—High School.  
 Dresden Mills—*Bridge Academy*.  
 East Corinth—*East Corinth Academy*.  
 East Machias—*Washington Academy*.  
 Easton—High School.  
 Eastport—High School.  
 Eliot—High School.  
 Ellsworth—High School.  
 Eustis—High School.  
 Exeter—High School.  
 Fairfield—High School.  
 Farmington—High School.  
 Fort Fairfield—High School..  
 Foxcroft—*Foxcroft Academy*.  
 Frankfort—High School.  
 Franklin—High School.  
 Freedom—*Freedom Academy*.  
 Freeport—High School.  
 Fryeburg—*Fryeburg Academy*.  
 Gardiner—High School.  
 Garland—High School.  
 Gorham—High School.  
 Gray—*Pennell Institute*.  
 Greenville—High School.  
 Guilford—High School.  
 Hallowell—High School.

Hampden—*Academy*.  
 Harmony—High School.  
 Harrington—High School.  
 Hartland—*Academy*.  
 Hebron—*Academy*.  
 Hinckley—*Good Will High School*.  
 Hollis Center—Hollis High School.  
 Houlton—  
     High School.  
     *Ricker Classical Institute*.  
 Island Falls—High School.  
 Islesboro—High School.  
 Jay—High School.  
 Jonesboro—High School.  
 Jonesport—High School.  
 Kennebunk—High School.  
 Kennebunkport—High School.  
 Kents Hill—*Maine Wesleyan Seminary*.  
 Kezar Falls—Porter High School.  
 Kingfield—High School.  
 Kingman—High School.  
 Kittery—*Traut Academy*.  
 Lee—*Lee Academy*.  
 Lewiston—High School.  
 Limerick—*Limerick Academy*.  
 Limestone—High School.  
 Limington—*Limington Academy*.  
 Lincoln—*Mattanawcook Academy*.  
 Lisbon—High School.  
 Lisbon Falls—High School.  
 Litchfield—*Litchfield Academy*.  
 Livermore Falls—East Livermore High School.  
 Lubec—High School.  
 Machias—High School.  
 Madison—High School.  
 Mars Hill—*Aroostook Central Institute*.  
 Mattawamkeag—High School.  
 Mechanic Falls—High School.  
 Mexico—High School.  
 Millbridge—High School.  
 Millinocket—High School.  
 Milo—High School.  
 Monmouth—*Monmouth Academy*.  
 Monson—*Monson Academy*.  
 Newcastle—*Lincoln Academy*.  
 New Gloucester—High School.  
 Newport—High School.  
 New Sharon—High School.  
 Norridgewock—High School.  
 North Anson—*Anson Academy*.  
 North Berwick—High School.  
 North Bridgton—*Bridgton Academy*.  
 Northeast Harbor—Mount Desert High School.  
 North Lebanon—High School.  
 Norway—High School.  
 Oakland—High School.  
 Old Orchard—High School.  
 Old Town—High School.  
 Orono—High School.  
 Oxford—High School.  
 Parsonsfield—*Parsonsfield Seminary*.  
 Patten—*Patten Academy*.  
 Penobscot—High School.  
 Phillips—High School.

Pittsfield—*Maine Central Institute*.  
 Portland—  
     Deering High School.  
     High School.  
     *St. Joseph's Academy*.  
     *Westbrook Seminary*.  
 Presque Isle—High School.  
 Princeton—High School.  
 Rangeley—High School.  
 Richmond—High School.  
 Rockland—High School.  
 Rockport—High School.  
 Rumford—High School.  
 Sabattus—Webster High School.  
 Saco—*Thornton Academy*.  
 Sanford—High School.  
 Sanguerville—High School.  
 Scarborough—High School.  
 Searsport—High School.  
 Sebago—*Potter Academy*.  
 Sherman—High School.  
 Skowhegan—High School.  
 Solon—High School.  
 South Berwick—*Berwick Academy*.  
 South China—*Erskine Academy*.  
 South Paris—Paris High School.  
 South Portland—  
     Cape Elizabeth High School.  
     High School.  
 Southwest Harbor—High School.  
 South Windham—Windham High School.  
 Springfield—*Eastern Maine Institute*.  
 Standish—High School.  
 Stonington—High School.  
 Strong—High School.  
 Tenants Harbor—St. George High School.  
 Thomaston—High School.  
 Topsham—High School.  
 Turner Center—*Leavitt Institute*.  
 Unity—High School.  
 Vanceboro—High School.  
 Vassalboro—*Oak Grove Seminary*.  
 Vinalhaven—High School.  
 Waldoboro—High School.  
 Warren—High School.  
 Washburn—High School.  
 Waterville—  
     *Coburn Classical Institute*.  
     High School.  
 Weld—High School.  
 Wells—High School.  
 Westbrook—High School.  
 West Sullivan—Sullivan High School.  
 Wilton—*Wilton Academy*.  
 Winslow—High School.  
 Winter Harbor—High School.  
 Winterport—High School.  
 Winthrop—High School.  
 Wiscasset—*Wiscasset Academy*.  
 Yarmouthville—  
     Yarmouth High School.  
     *North Yarmouth Academy*.  
 York Village—York High School.

## MARYLAND.

First group—Public high schools approved by the State Board of Education of Maryland, May, 1916.

Conditions of approval of "First group" schools: A bona fide enrollment of 80 or more students; 4 or more academic teachers—full time or equivalent; a 4-years' course of at least 36 actual school weeks in each year; courses of study to conform to those prescribed by the State board of education; sufficient library and laboratory facilities.

Annapolis—High School.  
 Baltimore—  
   City College.  
   Eastern High School.  
   High and Training School (colored).  
   Polytechnic Institute.  
   Western High School.  
 Brunswick—High School.  
 Cambridge—High School.  
 Catonsville—High School.  
 Centerville—High School.  
 Chestertown—High School.  
 Crisfield—High School.  
 Cumberland—Allegany County High School.  
 Denton—Caroline County High School.  
 Easton—High School.  
 Elkton—Cecil County High School.  
 Ellicott City—High School.  
 Frederick—  
   Boys' High School.  
   Girls' High School.

Frostburg—Beall High School.  
 Hagerstown—  
   Boys' High School.  
   Girls' High School.  
 Havre de Grace—High School.  
 Laurel—High School.  
 Lonaconing—Central High School.  
 Middletown—High School.  
 Oakland—High School.  
 Pocomoke City—High School.  
 Reisterstown—Franklin High School.  
 Rockville—Montgomery County High School.  
 Salisbury—Wicomico County High School.  
 Snow Hill—High School.  
 Sparrows Point—High School.  
 Towson—High School.  
 Westminster—High School.

Second group—Recommended by the board of education as equipped to offer 14 units of college preparatory work.

Aberdeen—High School.  
 Bel Air—High School.  
 Boonsboro—High School.  
 Berlin—Buckingham High School.  
 Chesapeake City—High School.  
 Chevy Chase—High School.  
 Clear Spring—High School.  
 Delmar—High School.  
 Federalsburg—High School.  
 Gaithersburg—High School.  
 Hurlock—High School.  
 Hyattsville—High School.  
 Marlboro—High School.  
 Nanticoke—High School.

North East—High School.  
 Oxford—High School.  
 Princess Anne—Washington High School.  
 Queen Anne—Tri-county High School.  
 Rock Hall—High School.  
 Sharptown—High School.  
 St. Michaels—High School.  
 Sandy Spring—Sherwood High School.  
 Stockton—High School.  
 Sudlersville—High School.  
 Thurmont—High School.  
 Trappe—High School.  
 Vienna—High School.

## MASSACHUSETTS.

Public high schools not on the New England College Entrance Certificate Board list<sup>1</sup> issued May 20, 1915, but approved by the State Board of Education of Massachusetts for the privilege of normal-school certification.

	Units.
Admission requirements.....	15
Prescribed units:	
English.....	3
Electives—from the following subjects at least.....	7
Biology, botany or zoology, physical geography, physiology and hygiene, general science, drawing, commercial geography, and arithmetic, 1 to 1 unit; algebra, physics, chemistry, manual training, and bookkeeping, 1 unit; stenography and household arts, 1 or 2 units; history, 1, 2, or 3 units; French and German, 2 or 3 units; Latin, 2, 3, or 4 units.	
Additional subjects—from the above or other subjects approved by the high school toward the diploma of graduation.....	5

Amesbury—High School.  
 Ashfield—High School.  
 Avon—High School.  
 Billerica—High School.

Boston—High School of Practical Arts.  
 Bourne—High School.  
 Braintree—High School.  
 Brewster—High School.

<sup>1</sup> The State board of education accepts for certification to the State normal schools all high schools approved by the New England college entrance certificate board.

Brookfield—High School.  
 Canton—High School.  
 Charlemont—High School.  
 Chatham—High School.  
 Chelmsford—  
     Center High School.  
     North High School.  
 Cohasset—High School.  
 Douglas—High School.  
 Dover—High School.  
 Duxbury—High School.  
 East Bridgewater—High School.  
 Easton—High School.  
 Edgartown—High School.  
 Essex—High School.  
 Fall River—Technical High School.  
 Great Barrington—High School.  
 Hamilton—High School.  
 Hardwick—High School.  
 Holbrook—High School.  
 Holden—High School.  
 Hopedale—High School.  
 Hopkinton—High School.  
 Huntington—High School.  
 Lancaster—High School.  
 Lenox—High School.  
 Littleton—High School.  
 Ludlow—High School.  
 Medfield—High School.  
 Merrimac—High School.  
 Millbury—High School.  
 Mills—High School.  
 Nantucket—High School.  
 Northboro—High School.  
 Northfield—High School.

Oak Bluffs—High School.  
 Orleans—High School.  
 Oxford—High School.  
 Pembroke—High School.  
 Petersham—High School.  
 Plainville—High School.  
 Randolph—High School.  
 Reading—High School.  
 Rockport—High School.  
 Shirley—High School.  
 Shrewsbury—High School.  
 Somerset—High School.  
 Southboro—High School.  
 South Hadley—High School.  
 Spencer—High School.  
 Sterling—High School.  
 Stockbridge—High School.  
 Stow—High School.  
 Sutton—High School.  
 Templeton—High School.  
 Tisbury—High School.  
 Topsfield—High School.  
 Walpole—High School.  
 Watertown—High School.  
 Wayland—High School.  
 Westboro—High School.  
 Westford—High School.  
 West Boylston—High School.  
 Westminster—High School.  
 Weston—High School.  
 Williamsburg—High School.  
 Wilmington—High School.  
 Worcester—North High School.  
 Yarmouth—High School.

### MICHIGAN.

Accredited by the University of Michigan, August, 1915.

"Graduates of schools which have been placed by the university on the approved list are admitted without examination on presenting a recommendation, signed by the principal of the school, certifying that they have satisfactorily done all the work required for admission."

	Units.
Admission requirements.....	15
Prescribed units:	
English.....	3
Mathematics.....	2
Foreign language.....	2
Science.....	1
(Two subjects of 3 units each from above.)	
Electives.....	7

Adrian—High School.  
 Albion—High School.  
 Allegan—High School.  
 Alma—High School.  
 Alpena—High School.  
 Ann Arbor—  
     High School.  
     *St. Thomas's School.*  
 Armada—High School.  
 Athens—High School.  
 Bad Axe—High School.  
 Bangor—High School.  
 Baraga—High School.  
 Battle Creek—High School.  
 Bay City—  
     (East Side)—High School.  
     (West Side)—High School.  
     *Holy Rosary Academy.*

Bay City—Continued.  
     *St. James Academy.*  
     *St. Mary's School.*  
 Beacon—Champion High School.  
 Belding—High School.  
 Bellaire—High School.  
 Bellevue—High School.  
 Benton Harbor—High School.  
 Benzonia—*Academy.*  
 Berrien Springs—High School.  
 Bessemer—High School.  
 Big Rapids—  
     *Ferris Institute.*  
     High School.  
 Birmingham—High School.  
 Blissfield—East Blissfield High School.  
 Boyne City—High School.  
 Bronson—High School.

Brooklyn—High School.  
 Brown City—High School.  
 Buchanan—High School.  
 Cadillac—High School.  
 Calumet—High School.  
 Caro—High School.  
 Carson City—High School.  
 Cass City—High School.  
 Cassopolis—High School.  
 Cedar Springs—High School.  
 Central Lake—High School.  
 Charlevoix—High School.  
 Charlotte—High School.  
 Cheboygan—High School.  
 Chelsea—High School.  
 Chesaning—High School.  
 Clare—High School.  
 Clinton—High School.  
 Coldwater—High School.  
 Coloma—High School.  
 Colon—High School.  
 Constantine—High School.  
 Coopersville—High School.  
 Corunna—High School.  
 Crosswell—High School.  
 Crystal Falls—High School.  
 Decatur—High School.  
 Deckerville—High School.  
 Detroit—  
     Case High School.  
     Central High School.  
     Eastern High School.  
     *Liggett School.*  
     McMillan High School.  
     Northwestern High School.  
     *New University School.*  
     *University of Detroit High School.*  
     Western High School.  
 Dexter—High School.  
 Dollar Bay—High School.  
 Dowagiac—High School.  
 Dundee—High School.  
 Durand—High School.  
 East Jordan—High School.  
 East Tawas—High School.  
 Eaton Rapids—High School.  
 Elk Rapids—High School.  
 Elsie—High School.  
 Escanaba—High School.  
 Evart—High School.  
 Fenton—High School.  
 Flint—High School.  
 Flushing—High School.  
 Fowlerville—High School.  
 Frankfort—High School.  
 Fremont—High School.  
 Galesburg—High School.  
 Gaylord—High School.  
 Gladstone—High School.  
 Gladwin—High School.  
 Gobleville—High School.  
 Grand Haven—  
     *Akeley Hall.*  
     High School.  
 Grand Ledge—High School.

Grand Rapids—  
     *Academy.*  
     *Catholic High School for Boys.*  
     *Catholic High School for Girls.*  
     Central High School.  
     *John Calvin College Preparatory.*  
     *Sacred Heart Academy.*  
     South Grand Rapids High School.  
     Union High School.  
 Grandville—High School.  
 Grayling—High School.  
 Greenland—High School.  
 Greenville—High School.  
 Gwinn—High School.  
 Hancock—High School.  
 Harbor Beach—High School.  
 Harbor Springs—High School.  
 Hart—High School.  
 Hartford—High School.  
 Hastings—High School.  
 Highland Park—High School.  
 Hillsdale—High School.  
 Holland—High School.  
 Holly—High School.  
 Homer—High School.  
 Houghton—High School.  
 Howard City—High School.  
 Howell—High School.  
 Hudson—High School.  
 Inlay City—High School.  
 Iona—High School.  
 Iron Mountain—High School.  
 Iron River—High School.  
 Ironwood—  
     High School.  
     *St. Ambrose School.*  
 Ishpeming—High School.  
 Ithaca—High School.  
 Jackson—  
     High School.  
     *St. Mary's School.*  
 Jonesville—High School.  
 Kalamazoo—  
     High School.  
     *Nazareth Academy.*  
     Normal Preparatory.  
 Kalkaska—High School.  
 L'Anse—High School.  
 Lake City—High School.  
 Lake Linden—High School.  
 Lake Odessa—High School.  
 Lansing—  
     High School.  
     *St. Mary's School.*  
 Lapeer—High School.  
 Lawrence—High School.  
 Lawton—High School.  
 Leslie—High School.  
 Linden—High School.  
 Lowell—High School.  
 Ludington—  
     High School.  
     *St. Simon's School.*  
 Mancelona—High School.  
 Manchester—High School.

Manistee—High School.  
 Manistique—High School.  
 Manton—High School.  
 Marine City—High School.  
 Marlette—High School.  
 Marquette—High School.  
 Marshall—High School.  
 Mason—High School.  
 Mendon—High School.  
 Menominee—High School.  
 Midland—High School.  
 Milan—High School.  
 Millford—High School.  
 Millington—High School.  
 Monroe—  
     High School.  
     *St. Mary's Academy.*  
 Montgomery—High School.  
 Morenci—High School.  
 Mount Clemens—  
     High School.  
     *St. Peter's School.*  
 Mount Pleasant—  
     High School.  
     Normal Preparatory.  
     *Sacred Heart Academy.*  
 Muskegon—  
     High School.  
     *St. Mary's School.*  
 Munising—High School.  
 Nashville—High School.  
 Negaunee—High School.  
 Newaygo—High School.  
 New Baltimore—High School.  
 Newberry—High School.  
 Niles—High School.  
 North Branch—High School.  
 Northville—High School.  
 Norway—High School.  
 Olivet—High School.  
 Onaway—High School.  
 Ontonagon—High School.  
 Orchard Lake—*Methodius School.*  
 Orion—High School.  
 Otsego—High School.  
 Ovid—High School.  
 Owosso—High School.  
 Oxford—High School.  
 Painesdale—High School.  
 Paw Paw—High School.  
 Pellston—High School.  
 Pentwater—High School.  
 Petoskey—High School.  
 Plainwell—High School.  
 Plymouth—High School.  
 Pontiac—High School.  
 Port Huron—High School.  
 Portland—High School.  
 Rapid River—High School.  
 Reading—High School.

Reed City—High School.  
 Republic—High School.  
 Richmond—High School.  
 River Rouge—High School.  
 Rochester—High School.  
 Rockford—High School.  
 Rockland—High School.  
 Romeo—High School.  
 Royal Oak—High School.  
 Saginaw—  
     (East Side)—High School.  
     *St. Mary's School.*  
     (South Side)—*St. Peter and Paul's School.*  
     (West Side)—High School.  
 St. Charles—High School.  
 St. Clair—High School.  
 St. Ignace—High School.  
 St. Johns—High School.  
 St. Joseph—High School.  
 St. Louis—High School.  
 Saline—High School.  
 Sandusky—High School.  
 Sault Ste. Marie—High School.  
 Saranac—High School.  
 Schoolcraft—High School.  
 Scottville—High School.  
 Sebewaing—High School.  
 Shelby—High School.  
 Shephard—High School.  
 South Haven—High School.  
 Sparta—High School.  
 Spring Arbor—*Academy.*  
 Standish—High School.  
 Stanton—High School.  
 Sturgis—High School.  
 Tecumseh—High School.  
 Tekonsha—High School.  
 Three Oaks—High School.  
 Three Rivers—High School.  
 Traverse City—High School.  
 Trenton—High School.  
 Union City—High School.  
 Vassar—High School.  
 Vermontville—High School.  
 Vicksburg—High School.  
 Vulcan—High School.  
 Wakefield—High School.  
 Watervliet—High School.  
 Wayne—High School.  
 West Branch—High School.  
 Whitehall—High School.  
 White Pigeon—High School.  
 Williamston—High School.  
 Wolverine—High School.  
 Wyandotte—High School.  
 Yale—High School.  
 Ypsilanti—  
     High School.  
     Michigan State Normal College, Preparatory.  
 Zeeland—High School.

## MINNESOTA.

Approved by the Minnesota State Education Department and accredited by the University of Minnesota,  
for the year 1915-16.<sup>1</sup>

	Units.
Admission requirements.....	15
Prescribed units:	
English.....	* 3 or 4
Mathematics.....	2
Electives.....	9 or 10

Ada—High School.

Adrian—High School.

Altlin—High School.

Akeley—High School.

Albert Lea—

*Albert Lea College, Preparatory Department.*  
High School.

Alden—High School.

Alexandria—High School.

Amboy—High School.

Annandale—High School.

Anoka—High School.

Appleton—High School.

Argyle—High School.

Arlington—High School.

Atwater—High School.

Aurora—High School.

Austin—High School.

Bagley—High School.

Barnesville—High School.

Belle Plaine—High School.

Bemidji—High School.

Benson—High School.

Bird Island—High School.

Biwabik—High School.

Blackduck—High School.

Blooming Prairie—High School.

Blue Earth—High School.

Brainerd—High School.

Breckenridge—High School.

Brown Valley—High School.

Buffalo—High School.

Buhl—High School.

Caledonia—High School.

Cambridge—High School.

Canby—High School.

Cannon Falls—High School.

Cass Lake—High School.

Chaska—High School.

Chatfield—High School.

Chisholm—High School.

Clarkfield—High School.

Cloquet—High School.

Cokato—High School.

Coleraine—

*Greenway High School.*

*Olcott High School.*

*Collegeville—St. John's College.*

*Cottonwood—High School.*

*Crookston—High School.*

*Dassel—High School.*

*Dawson—High School.*

*Deer River—High School.*

*Delano—High School.*

*Detroit—High School.*

*Dodge Center—High School.*

Duluth—

*Cathedral High School for Boys.*

*Cathedral High School for Girls.*

*Central High School.*

*Denfeld High School.*

*Villa Sancta Scholastica.*

*Eagle Bend—High School.*

*East Grand Forks—High School.*

*Elbow Lake—High School.*

*Elk River—High School.*

*Elmore—High School.*

*Ely—High School.*

*Eveleth—High School.*

*Excelsior—High School.*

*Fairfax—High School.*

*Fairmont—High School.*

*Faribault—*

*High School.*

*Bethlehem Academy.*

*St. Mary's Hall.*

*Shattuck Military Academy.*

*Farmington—High School.*

*Fergus Falls—*

*High School.*

*Park Region Luther College.*

*Fertile—High School.*

*Fosston—High School.*

*Frazee—High School.*

*Frontenac—Villa Maria.*

*Fulda—High School.*

*Gaylord—High School.*

*Gilbert—High School.*

*Glencoe—High School.*

*Glenwood—High School.*

*Graceville—High School.*

*Grand Meadow—High School.*

*Grand Rapids—High School.*

*Granite Falls—High School.*

*Hallock—High School.*

*Halstad—High School.*

*Harmony—High School.*

*Hastings—High School.*

*Hawley—High School.*

*Hector—High School.*

*Henderson—High School.*

*Herman—High School.*

*Heron Lake—High School.*

*Hibbing—High School.*

*Hinckley—High School.*

*Hopkins—High School.*

*Houston—High School.*

*Howard Lake—High School.*

*Hutchinson—High School.*

*International Falls—High School.*

*Ivanhoe—High School.*

*Jackson—High School.*

<sup>1</sup> The State Education Department approves only public high schools.

<sup>2</sup> If 3, must be accompanied by 4 units of one foreign language, or 2 units in each of two foreign languages.



Janesville—High School.  
 Jordan—High School.  
 Kasota—High School.  
 Kasson—High School.  
 Kenyon—High School.  
 Kerkoven—High School.  
 Lake Benton—High School.  
 Lake City—High School.  
 Lake Crystal—High School.  
 Lakefield—High School.  
 Lake Park—High School.  
 Lamberton—High School.  
 Lanesboro—High School.  
 Le Roy—High School.  
 Le Sueur—High School.  
 Le Sueur Center—High School.  
 Litchfield—High School.  
 Little Falls—High School.  
 Long Prairie—High School.  
 Luverne—High School.  
 Lyle—High School.  
 McIntosh—High School.  
 Mabel—High School.  
 Madelia—High School.  
 Madison—High School.  
 Mahanomen—High School.  
 Mankato—High School.  
 Mantorville—High School.  
 Maple Lake—High School.  
 Mapleton—High School.  
 Marshall—High School.  
 Melrose—High School.  
 Milaca—High School.  
 Minneapolis—  
     *Blake School for Boys.*  
     Central High School.  
     East High School.  
     *Graham Hall.*  
     *Minnesota College.*  
     North High School.  
     South High School.  
     *St. Margaret's Academy.*  
     *Stanley Hall.*  
     West High School.  
 Minneota—High School.  
 Montevideo—  
     High School.  
     *Windom Institute.*  
 Montgomery—High School.  
 Monticello—High School.  
 Moorhead—  
     *Concordia College.*  
     High School.  
 Mora—High School.  
 Morris—High School.  
 Morton—High School.  
 Mountain Lake—High School.  
 New Prague—High School.  
 New Richland—High School.  
 New Ulm—High School.  
 Northfield—High School.  
 North St. Paul—High School.  
 Norwood—Young America High School.  
 Olivia—High School.  
 Ortonville—High School.  
 Osakis—High School.

Owatonna—  
     High School.  
     *Pillsbury Academy.*  
 Park Rapids—High School.  
 Paynesville—High School.  
 Pelican Rapids—High School.  
 Perham—High School.  
 Pine City—High School.  
 Pine Island—High School.  
 Pine River—High School.  
 Pipestone—High School.  
 Plainview—High School.  
 Preston—High School.  
 Princeton—High School.  
 Red Lake Falls—High School.  
 Red Wing—  
     *Academy of the Red Wing Seminary.*  
     High School.  
     *Lutheran Ladies' Seminary.*  
 Redwood Falls—High School.  
 Renville—High School.  
 Rochester—High School.  
 Royalton—High School.  
 Rush City—High School.  
 Rushford—High School.  
 St. Charles—High School.  
 St. Cloud—High School.  
 St. James—High School.  
 St. Joseph—*Convent of St. Benedict.*  
 St. Louis Park—High School.  
 St. Paul—  
     *Bethel Academy.*  
     Central High School.  
     John A. Johnson High School.  
     Mechanic Arts High School.  
     Humboldt High School.  
     *St. Joseph Academy.*  
     *St. Paul Academy.*  
     St. Paul Normal School.  
     *St. Thomas College.*  
     *The Backus School for Girls.*  
     *The College of St. Catherine.*  
     *The Loomis School.*  
     *Visitation Convent.*  
 St. Paul Park—*St. Paul's College.*  
 St. Peter—High School.  
 Sandstone—High School.  
 Sauk Center—High School.  
 Sauk Rapids—High School.  
 Shakopee—High School.  
 Sherburne—High School.  
 Slayton—High School.  
 Sleepy Eye—High School.  
 South St. Paul—High School.  
 Springfield—High School.  
 Spring Grove—High School.  
 Spring Valley—High School.  
 Staples—High School.  
 Stephen—High School.  
 Stewartville—High School.  
 Stillwater—High School.  
 Thief River Falls—High School.  
 Tracy—High School.  
 Two Harbors—High School.  
 Tyler—High School.  
 Villard—High School.

Virginia—High School.  
 Wabasha—High School.  
 Wadena—High School.  
 Walker—High School.  
 Warren—High School.  
 Waseca—High School.  
 Waterville—High School.  
 Wayzata—High School.  
 Welcome—High School.  
 Wells—High School.  
 West Concord—High School.

Wheaton—High School.  
 White Bear Lake—High School.  
 Willmar—High School.  
 Windom—High School.  
 Winnebago—High School.  
 Winona—  
     High School.  
     *St. Clare Seminary.*  
 Winthrop—High School.  
 Worthington—High School.  
 Zumbrota—High School.

## MISSISSIPPI.

Affiliated with the University of Mississippi for the year 1916-17.

	Units.
Admission requirements.....	11
Prescribed units:	
English.....	3
Mathematics.....	2½
History.....	2
Electives.....	6½

Aberdeen—High School.  
 Ackerman—High School.  
 Amory—High School.  
 Ashland—High School.  
 Baldwyn—High School.  
 Batesville—High School.  
 Belzoni—High School.  
 Benton—Agricultural High School.  
 Biloxi—High School.  
 Blue Mountain—*Mississippi Heights Academy.*  
 Booneville—High School.  
 Brandon—High School.  
 Brookhaven—High School.  
 Brooklyn—Agricultural High School.  
 Byhalia—High School.  
 Buena Vista—Agricultural High School.  
 Camden—Agricultural High School.  
 Canton—High School.  
 Centerville—High School.  
 Charleston—High School.  
 Clara—Agricultural High School.  
 Clarksdale—High School.  
 Cleveland—Agricultural High School.  
 Collins—High School.  
 Columbia—High School.  
 Columbus—High School.  
 Como—High School.  
 Corinth—High School.  
 Courtland—Agricultural High School.  
 Crystal Springs—High School.  
 Derma—Agricultural High School.  
 Durant—High School.  
 Ecu—High School.  
 Ellisville—Agricultural High School.  
 Eupora—High School.  
 Fayette—County High School.  
 Flora—High School.  
 Florence—High School.  
 Forest—High School.  
 French Camp—*Academy.*  
 Goodman—Agricultural High School.  
 Greenville—

*Academy.*  
 High School.

Greenwood—High School.  
 Grenada—High School.  
 Gulfport—  
     *Gulfcoast Military Academy.*  
     High School.  
 Harperville—Agricultural High School.  
 Hattiesburg—High School.  
 Hazlehurst—High School.  
 Hernando—High School.  
 Hickory—High School.  
 Holly Springs—High School.  
 Houlika—High School.  
 Houston—High School.  
 Indianola—High School.  
 Itta Bena—High School.  
 Iuka—High School.  
 Jackson—Central High School.  
 Kilnichael—Agricultural High School.  
 Kosciusko—High School.  
 Kossuth—Agricultural High School.  
 Lamar—Slayden Agricultural High School.  
 Laurel—High School.  
 Leakesville—Agricultural High School.  
 Lena—Agricultural High School.  
 Lexington—High School.  
 Liberty—High School.  
 Long View—Agricultural High School.  
 Lounis—High School.  
 Louisville—High School.  
 Lumberton—High School.  
 Maben—High School.  
 Macon—High School.  
 Madison—High School.  
 Magnolia—High School.  
 Marks—High School.  
 Mashulaville—Agricultural High School.  
 Mathiston—*Bennett Academy.*  
 Mendenhall—Agricultural High School.  
 Meridian—High School.  
 McComb—High School.  
 Meadville—Agricultural High School.  
 Mize—Agricultural High School.  
 Montrose—*Mississippi Conference Training School.*  
 Moorhead—Agricultural High School.

Morton—High School.  
 Moss Point—High School.  
 Mount Olive—High School.  
 Natchez—High School.  
 Nettleton—High School.  
 New Albany—High School.  
 New Augusta—High School.  
 Newton—High School.  
 Oakland—Agricultural High School.  
 Okolona—High School.  
 Olive Branch—Agricultural High School.  
 Oxford—  
     Agricultural High School.  
     College Hill.  
     High School.  
 Pascagoula—High School.  
 Pass Christian—High School.  
 Pelahatchie—High School.  
 Perkinson—Agricultural High School.  
 Pheba—Agricultural High School.  
 Philadelphia—High School.  
 Pittsboro—High School.  
 Pontotoc—High School.  
 Poplarville—Agricultural High School.  
 Port Gibson—*Chamberlain-Hunt Academy*.  
 Prentiss—High School.  
 Purvis—Agricultural High School.  
 Richton—High School.  
 Roaring Fork—High School.  
 Sardis—High School.  
 Sooba—Agricultural High School.

Senatobia—High School.  
 Shelby—High School.  
 Shuqualak—High School.  
 Starkville—High School.  
 Summit—High School.  
 Sumrall—High School.  
 Toccopola—High School.  
 Tula—High School.  
 Tupelo—  
     High School.  
     *Military Institute*.  
 Tylertown—High School.  
 Union—High School.  
 Union Church—Agricultural High School.  
 Valden—High School.  
 Vanceleve—High School.  
 Verona—High School.  
 Vicksburg—  
     *All Saints' College*.  
     High School.  
     *St. Aloysius Academy*.  
 Walnut—Chalybeate Agricultural High School.  
 Washington—*Jefferson Military Academy*.  
 Water Valley—High School.  
 West Point—  
     High School.  
     *Southern Christian College*.  
 Wiggins—High School.  
 Winona—High School.  
 Woodville—Agricultural High School.  
 Yazoo City—High School.

## MISSOURI.

Approved by the State superintendent of schools and accredited by the University of Missouri, January 1, 1916.<sup>1</sup>

	Units.
University admission requirements.....	15
Prescribed units:	
English.....	3
Mathematics.....	1
Foreign language.....	2
Electives.....	9
Adrain—High School.	
Albany—High School.	
Armstrong—High School.	
Ash Grove—High School.	
Aurora—High School.	
Belton—High School.	
Bethany—High School.	
Bevier—High School.	
Billings—High School.	
Bloomfield—High School.	
Bollivar—High School.	
Bonne Terre—High School.	
Boonville— High School. <i>Kemper Military School</i> .	
Bosworth—High School.	
Bowling Green—High School.	
Braymer—High School.	
Breckenridge—High School.	
Brookfield—High School.	
Brunswick—High School.	
Buffalo—High School.	
Bunceton—High School.	
Burlington Junction—High School.	
Rutler—High School.	
Cainesville—High School.	
California—High School.	
Camden Point— <i>Missouri Christian College</i> .	
Cameron—High School.	
Campbell—High School.	
Canton—High School.	
Cape Girardeau—High School.	
Carrollton—High School.	
Carthage—High School.	
Caruthersville—High School.	
Centralia—High School.	
Charleston—High School.	
Chillicothe—High School.	
Clarence—High School.	
Clayton—High School.	
Clinton—High School.	
Columbia— High School. University High School.	
Dearborn—High School.	
Desloge—High School.	

<sup>1</sup> The State superintendent of schools approves only the public high schools.

De Soto—High School.  
 Dexter—High School.  
 Doniphan—High School.  
 East Prairie—High School.  
 Edina—High School.  
 Eldon—High School.  
 Eldorado Springs—High School.  
 Elsberry—High School.  
 Eolia—High School.  
 Everton—High School.  
 Excelsior Springs—High School.  
 Fairfax—High School.  
 Farmington—  
     *Carleton College.*  
     High School.  
 Fayette—  
     High School.  
     *Central College Academy.*  
 Ferguson—High School.  
 Festus—High School.  
 Flat River—High School.  
 Fredericktown—High School.  
 Fulton—High School.  
 Gallatin—High School.  
 Garden City—High School.  
 Gilman City—High School.  
 Glasgow—High School.  
 Golden City—High School.  
 Gorin—High School.  
 Grant City—High School.  
 Green City—High School.  
 Greenfield—High School.  
 Greenville—High School.  
 Hale—High School.  
 Hamilton—High School.  
 Hannibal—High School.  
 Hardin—High School.  
 Harrisonville—High School.  
 Hayti—High School.  
 Hickman Mills—High School.  
 Higbee—High School.  
 Higginsville—High School.  
 Holden—High School.  
 Hopkins—High School.  
 Houston—High School.  
 Huntsville—High School.  
 Iberia—*Academy.*  
 Independence—High School.  
 Ironton—High School.  
 Jackson—High School.  
 Jamesport—High School.  
 Jasper—High School.  
 Jefferson City—High School.  
 Joplin—High School.  
 Kahoka—High School.  
 Kansas City—  
     Central High School.  
     Lincoln High School.  
     Manual Training High School.  
     Northeast High School.  
     *St. Teresa's Academy.*  
     Westport High School.  
 Kennett—High School.  
 Keytesville—High School.  
 King City—High School.  
 Kirksville—High School.  
 Kirkwood—High School.

Knobnoster—High School.  
 Knox City—High School.  
 La Belle—High School.  
 Laclede—High School.  
 Lamar—High School.  
 Lancaster—High School.  
 La Plata—High School.  
 Lathrop—High School.  
 Lebanon—High School.  
 Lees Summit—High School.  
 Lexington—  
     High School.  
     *Wentworth Military Academy.*  
 Liberty—High School.  
 Linneus—High School.  
 Lockwood—High School.  
 Louisiana—High School.  
 Macon—High School.  
 Maitland—High School.  
 Malden—High School.  
 Maplewood—High School.  
 Marceline—High School.  
 Marionville—High School.  
 Marshall—High School.  
 Marshfield—High School.  
 Maryville—High School.  
 Maysville—High School.  
 Meadville—High School.  
 Memphis—High School.  
 Mexico—High School.  
 Milan—High School.  
 Moberly—High School.  
 Monett—High School.  
 Monroe City—High School.  
 Montgomery City—High School.  
 Mound City—High School.  
 Mountain Grove—High School.  
 Mount Vernon—High School.  
 Neosho—High School.  
 Nevada—High School.  
 New Franklin—High School.  
 New Haven—High School.  
 New London—High School.  
 New Madrid—High School.  
 Norborne—High School.  
 Odessa—High School.  
 Oregon—High School.  
 Osceola—High School.  
 Otterville—High School.  
 Ozark—High School.  
 Palmyra—High School.  
 Paris—High School.  
 Pattonsburg—High School.  
 Perry—High School.  
 Perryville—High School.  
 Peirce City—High School.  
 Piedmont—High School.  
 Platte City—High School.  
 Plattsburg—High School.  
 Pleasant Hill—High School.  
 Polo—High School.  
 Poplar Bluff—High School.  
 Potosi—High School.  
 Princeton—High School.  
 Republic—High School.  
 Richmond—High School.  
 Ridgeway—High School.

St. Charles—High School.  
 Ste. Genevieve—High School.  
 St. James—High School.  
 St. Joseph—Central High School.  
 St. Louis—

Central High School.  
*Manual Training School* (Washington University).

*Hoerner Hall.*

*Lenox Hall.*

McKinley High School.

*Mary Institute.*

*Smith Academy.*

Soldan High School.

*St. Joseph's Academy.*

*St. Vincent's Academy.*

Sumner High School.

*The Principia.*

Yeatman High School.

Salem—High School.

Salisbury—High School.

Sarcoile—High School.

Savannah—High School.

Sedalla—High School.

Seymour—High School.

Shelbina—High School.

Shelbyville—High School.

Slakeston—High School.

Skidmore—High School.

Slater—High School.

Springfield—High School.

Stanberry—High School.

Steelville—High School.

Sturgeon—High School.

Sullivan—High School.

Sweet Springs—High School.

Tarkie—High School.

Tipton—High School.

Trenton—High School.

Troy—High School.

Union—High School.

Unionville—High School.

Vandalla—High School.

Versailles—High School.

Walnut Grove—High School.

Warrensburg—High School.

Warsaw—High School.

Washington—High School.

Webb City—High School.

Webster Groves—High School.

Wellston—High School.

Wellsville—High School.

Weston—High School.

West Plains—High School.

Willow Springs—High School.

Windsor—High School.

## MONTANA.

Accredited by the State board of education and the University of Montana, March 9, 1916.

University admission requirements.....	Units.
The university prescribes no subjects for entrance, but entrance credit is given for all subjects in the official courses of study for Montana high schools. These must maintain one or more four-year courses of study, in all of which the following subjects shall be constant elements for the minimum amounts indicated:	15
English.....	4
Foreign language.....	2
Mathematics.....	2
Science.....	1
History.....	1

Anaconda—High School.

Baker—High School.

Belgrade—High School.

Belt—High School.

Big Timber—Sweet Grass County High School.

Billings—High School.

Boulder—Jefferson County High School.

Bozeman—Gallatin County High School.

Bridger—High School.

Butte—

*Business College.*

*Central High School.*

*High School.*

Chinook—High School.

Choteau—Teton County High School.

Columbia Falls—High School.

Columbus—High School.

Conrad—High School.

Corvallis—High School.

Culbertson—High School.

Cutbank—High School.

Deer Lodge—

*Academy of the College of Montana.*

*Powell County High School.*

Dillon—Beaverhead County High School.

Eureka—High School.

Forsyth—High School.

Fort Benton—Choteau County High School.

Fromberg—High School.

Glasgow—High School.

Glendive—Dawson County High School.

Great Falls—

*High School.*

*Mount Angela Ursuline Academy.*

Hamilton—High School.

Harlowton—High School.

Havre—High School.

Helena—

*High School.*

*St. Vincent's Academy.*

Hysham—High School.

Joliet—High School.

Kalispell—Flathead County High School.

Laurel—High School.

Lewistown—Fergus County High School.

Libby—High School.

Livingston—Park County High School.

Manhattan—High School.

Miles City—Custer County High School.  
Missoula—

Missoula County High School.

*Loyola High School.*

*Sacred Heart Academy.*

Moore—High School.

Philipsburg—Granite County High School.

Plains—High School.

Polson—High School.

Pony—High School.

Ravalli—High School.

Red Lodge—Carbon County High School.

Roundup—High School.

Shelby—High School.

Sheridan—High School.

Sidney—High School.

Stanford—High School.

Stevensville—High School.

Terry—High School.

Thompson Falls—High school.

Three Forks—High School.

Townsend—Broad water County High School.

Valier—High School.

Victor—High School.

Virginia City—High School.

Whitefish—High School.

Whitehall—High School.

White Sulphur Springs—High School.

Wibaux—Wibaux County High School.

Worden—High School.

## NEBRASKA.

Accredited by the University of Nebraska for the year 1914-15.

	Units.
Admission requirements.....	15
Prescribed units—	
English.....	2
Mathematics.....	2
Foreign language.....	3
Science.....	1
History.....	1
Electives.....	6

### GROUP A.

Adams—High School.

Albion—High School.

Alliance—High School.

Ashland—High School.

Auburn—High School.

Aurora—High School.

Beatrice—High School.

Beaver Crossing—High School.

Bellevue—Pioneer Union High School.

Benson—High School.

Bethany—*Cotner Academy.*

Blair—

*Dana College Academy.*

High School.

Broken Bow—High School.

Burwell—High School.

Central City—High School.

Clarks—High School.

College View—*Union College Academy.*

Columbus—High School.

Crete—

*Doane Academy.*

High School.

Curtis—Nebraska School of Agriculture.

David City—High School.

Edgar—High School.

Emerson—High School.

Exeter—High School.

Fairbury—High School.

Fairfield—High School.

Fairmont—High School.

Falls City—High School.

Franklin—

*Academy.*

High School.

Fremont—High School.

Friend—High School.

Fullerton—High School.

Geneva—High School.

Genoa—High School.

Gothenburg—High School.

Grand Island—

*Academy.*

High School.

Harvard—High School.

Hastings—

*Academy.*

High School.

Havelock—High School.

Hebron—High School.

Holdrege—High School.

Humboldt—High School.

Kearney—High School.

Kimball—High School (County).

Lexington—High School.

Lincoln—

High School.

*Nebraska Military Academy.*

School of Agriculture, University of Nebraska.

Teachers' College High School, University of Nebraska.

McCook—High School.

Madison—High School.

Mead—High School.

Minden—High School.

Nebraska City—High School.

Neligh—High School.

Nelson—High School.

Newman Grove—High School.

Norfolk—High School.

North Platte—High School.

Ohlawa—High School.

Omaha—

*Brownell Hall.*

*Creighton Academy.*

High School.

*Mount St. Mary's Seminary.*

*Sacred Heart Academy.*

Ord—High School.  
 Osceola—High School.  
 Pawnee City—High School.  
 Pender—High School.  
 Plainview—High School.  
 Ponca—High School.  
 Randolph—High School.  
 Ravenna—High School.  
 Red Cloud—High School.  
 St. Edward—High School.  
 Schuyler—High School.  
 Scottsbluff—High School.  
 Seward—High School.  
 Shelton—High School.  
 Sidney—High School.  
 South Omaha—High School.  
 Stanton—High School.  
 Stromsburg—High School.

Superior—High School.  
 Sutton—High School.  
 Syracuse—High School.  
 Tecumseh—High School.  
 Tekamah—High School.  
 University Place—  
     High School.  
     *Nebraska Wesleyan Academy.*  
 Wahoo—High School.  
 Wayne—High School.  
 Weeping Water—High School.  
 West Point—High School.  
 Wilber—High School.  
 Wisner—High School.  
 York—  
     *College Academy.*  
     High School.

GROUP B.<sup>1</sup>

Ainsworth—High School.  
 Alexandria—High School.  
 Alma—High School.  
 Ansley—High School.  
 Arapahoe—High School.  
 Arlington—High School.  
 Atkinson—High School.  
 Bancroft—High School.  
 Bartley—High School.  
 Battle Creek—High School.  
 Beaver City—High School.  
 Benkleman—High School.  
 Bertrand—High School.  
 Bethany—High School.  
 Bladen—High School.  
 Bloomfield—High School.  
 Bloomington—High School.  
 Blue Hill—High School.  
 Blue Springs—High School.  
 Brady—High School.  
 Bridgeport—High School.  
 Butte—High School.  
 Cambridge—High School.  
 Campbell—High School.  
 Cedar Bluffs—High School.  
 Cedar Rapids—High School.  
 Central City—*Nebraska Central College Academy.*  
 Chadron—High School.  
 Chester—High School.  
 Clarkson—High School.  
 Clay Center—High School.<sup>1</sup>  
 Coleridge—High School.  
 Cook—High School.  
 Cozad—High School.  
 Craig—High School.  
 Crawford—High School.  
 Creighton—High School.  
 Crofton—High School.  
 Culbertson—High School.  
 Davenport—High School.  
 De Witt—High School.  
 Diller—High School.  
 Dodge—High School.  
 Dorchester—High School.  
 Edison—High School.  
 Elgin—High School.

Elm Creek—High School.  
 Elmwood—High School.  
 Eustis—High School.  
 Ewing—High School.  
 Gering—Union High School.  
 Gibbon—High School.  
 Giltner—High School.  
 Gordon—High School.  
 Graton—High School.  
 Grant—Perkins County High School.  
 Greeley—High School.  
 Greenwood—High School.  
 Gretna—High School.  
 Guide Rock—High School.  
 Hardy—High School.  
 Hartington—High School.  
 Hastings—*Immaculate Conception Academy.*  
 Hebron—*Academy.*  
 Hickman—High School.  
 Hildreth—High School.  
 Holbrook—High School.  
 Hooper—High School.  
 Indianola—High School.  
 Jackson—  
     High School.  
     *St. Catherine Academy.*  
 Juniata—High School.  
 Kenesaw—High School.  
 Laurel—High School.  
 Lawrence—High School.  
 Liberty—High School.  
 Lincoln—*St. Theresa's High School.*  
 Lodge Pole—High School.  
 Louisville—High School.  
 Loop City—High School.  
 Lyons—High School.  
 Maxwell—High School.  
 Meadow Grove—High School.  
 Merna—High School.  
 Millford—High School.  
 Mitchell—High School.  
 Morrill—High School.  
 Nebraska City—*St. Bernard Academy.*  
 Nehawka—High School.  
 Newcastle—High School.  
 North Bend—High School.

<sup>1</sup> Schools fully accredited but not meeting fully the standards of Group A schools as to the preparation of teachers or in laboratory and library facilities.

North Loup—High School.  
 Oakdale—High School.  
 Oakland—High School.  
 Odell—High School.  
 Ogallala—High School.  
 Omaha—*Sacred Heart High School*.  
 O'Neill—  
     High School.  
     *St. Mary's Academy*.  
 Orchard—High School.  
 Orleans—High School.  
 Overton—High School.  
 Oxford—High School.  
 Papillion—High School.  
 Pierce—High School.  
 Plattsmouth—High School.  
 Polk—High School.  
 Rising Sun—High School.  
 St. Paul—High School.  
 Sargent—High School.  
 Scribner—High School.  
 Shelby—High School.  
 Silver Creek—High School.  
 Spalding—*Academy*.

Spencer—High School.  
 Springfield—High School.  
 Stella—High School.  
 Sterling—High School.  
 Stratton—High School.  
 Stuart—High School.  
 Sutherland—High School.  
 Swanton—High School.  
 Table Rock—High School.  
 Tilden—High School.  
 Trenton—High School.  
 Ulysses—High School.  
 Utica—High School.  
 Valentine—High School.  
 Valley—High School.  
 Wahoo—*Luther Academy*.  
 Wakefield—High School.  
 Waterloo—High School.  
 Western—High School.  
 Wilsonville—High School.  
 Wood River—High School.  
 Wymore—High School.  
 York—*Holy Family Academy*.

GROUP C.<sup>1</sup>

Carroll—High School.  
 Columbus—*St. Francis Academy*.  
 Cortland—High School.  
 Cowles—High School.  
 Falls City—*Sacred Heart Academy*.  
 Hagler—High School.  
 Herman—High School.  
 Humphrey—High School.  
 Hyannis—High School.  
 Kearney—*Military Academy*.

Lynch—High School.  
 Monroe—High School.  
 Osmond—High School.  
 Rushville—High School.  
 Talmage—High School.  
 Thedford—Thomas County High School.  
 Union—High School.  
 Wausa—High School.  
 Winslow—High School.  
 Wolbach—High School.

## NEVADA.

Fully accredited by the University of Nevada, November, 1915.

"Graduates of such accredited high schools may, on the recommendation of their teacher, be admitted to the university in the subjects in which their school has been accredited, but in all other subjects an examination will be required."

	Units.
Admission requirements.....	15
Prescribed units:	
English.....	3
Mathematics.....	2
History.....	2
Science.....	1
Foreign language.....	4
Electives.....	3

Bunkerville—High School.  
 Carson City—High School.  
 Dayton—Lyon County High School.  
 Elko—Elko County High School.  
 Ely—White Pine County High School.  
 Fallon—Churchill County High School.  
 Gardnerville—Douglas County High School.  
 Goldfield—High School.  
 Las Vegas—Clark County High School.

Lovelock—Humboldt County High School.  
 Panaca—Lincoln County High School.  
 Reno—High School.  
 Sparks—High School.  
 Tonopah—High School.  
 Virginia City—High School.  
 Winnemucca—Humboldt County High School.  
 Yerington—Lyon County High School.

<sup>1</sup> The graduates of this group may receive 28 points (14 units) on credentials from their schools, giving them conditional admission to college or university. Additional credits may be secured by examination.



## NEW HAMPSHIRE.

"First-class" schools, approved by the New Hampshire Department of Public Instruction, for the year ending July 15, 1916. These schools have four-year courses, and graduation is on at least 14 units.

Alton—High School.  
 Amherst—High School.  
 Andover—*Proctor Academy*.  
 Antrim—High School.  
 Ashland—High School.  
 Atkinson—*Academy*.  
 Bath—High School.  
 Berlin—High School.  
 Bethlehem—High School.  
 Claremont—Stevens High School.  
 Colebrook—Academy.  
 Concord—  
     High School.  
     *St. Mary's School*.  
 Contoocook—Hopkinton High School.  
 Derry—*Pinkerton Academy*.  
 Dover—High School.  
 East Jaffrey—Conant High School.  
 Enfield—High School.  
 Epping—High School.  
 Exeter—  
     Robinson Seminary.  
     Tuck High School.  
 Farmington—High School.  
 Franconia—Dow Academy.  
 Franklin—High School.  
 Gorham—High School.  
 Groveton—High School.  
 Hampstead—High School.  
 Hampton—Academy.  
 Hanover—High School.  
 Haverhill—Academy.  
 Henniker—High School.  
 Hillsborough—High School.  
 Hinsdale—High School.  
 Hollis—High School.  
 Hooksett—*Mount St. Mary's Seminary*.  
 Jefferson—High School.  
 Keene—High School.  
 Kingston—*Sandborn Seminary*.

Laconia—High School.  
 Lancaster—High School.  
 Lebanon—  
     High School.  
     (West)—High School.  
 Lincoln—High School.  
 Lisbon—High School.  
 Littleton—High School.  
 Manchester—  
     High School.  
     *St. Anselm's College*.  
 Meriden—*Kimball Union Academy*.  
 Milford—High School.  
 Milton—Nute High School.  
 Nashua—High School.  
 New Hampton—*Literary Institution*.  
 New Ipswich—*Appleton Academy*.  
 New London—*Colby Academy*.  
 Newmarket—High School.  
 Newport—High School.  
 Northwood Centre—*Coe's Academy*.  
 Pembroke—Academy.  
 Penacook—High School.  
 Peterborough—High School.  
 Pittsfield—High School.  
 Plymouth—High School.  
 Portsmouth—High School.  
 Reeds Ferry—McGaw Institute.  
 Rochester—High School.  
 Somersworth—High School.  
 Strafford Center—*Austin-Cate Academy*.  
 Stratford (North)—High School.  
 Sunapee—High School.  
 Tilton—*Seminary*.  
 Walpole—High School.  
 Warner—Simonds Free High School.  
 Whitefield—High School.  
 Wilton—High School.  
 Winchester—High School.  
 Woodsville—High School.

## NEW JERSEY.

Approved by the New Jersey State Board of Education, December, 1915.

"Approved high schools" must maintain curricula covering four full years of work approved by the State board of education; the school year must run at least 38 weeks; the recitation periods must average 40 minutes in length; the teaching force must consist of not less than three teachers; the building must be adequate, and must be provided with ample laboratory and library facilities.

Asbury Park—High School.  
 Atlantic City—High School.  
 Atlantic Highlands—High School.  
 Barnegat—High School.  
 Bayonne—High School.  
 Belleville—High School.  
 Belvidere—High School.  
 Bernardsville—Bernards High School (Township).  
 Blairstown—  
     *Blair Hall*.  
     High School.

Bloomfield—  
     *German Theological School*.  
     High School.  
 Boonton—High School.  
 Bordentown—  
     *Bordentown Military Institute*.  
     High School.  
 Bound Brook—High School.  
 Bridgeton—  
     High School.  
     *Ivy Hall*.

- Burlington—High School.  
 Butler—High School.  
 Caldwell—  
     High School.  
     *Mount St. Dominic Academy.*  
 Camden—High School.  
 Cape May City—High School.  
 Cape May Court House—High School.  
 Chatham—High School.  
 Clayton—High School.  
 Clifton—High School (Township).  
 Clinton—High School.  
 Closter—High School.  
 Collingswood—High School.  
 Convent—  
     *St. Elizabeth's College, School of Pedagogy.*  
     *St. Elizabeth's Academy.*  
 Cranford—High School.  
 Dover—High School.  
 Dumont—High School.  
 East Orange—High School.  
 Elizabeth—  
     High School.  
     *Pingry School.*  
     *St. Patrick's High School.*  
     *Vail-Deane School.*  
 Elmer—High School.  
 Englewood—High School.  
 Essex Fells—*Kingsley School for Boys.*  
 Flemington—High School.  
 Fort Lee—*Holy Angels Academy.*  
 Freehold—  
     High School.  
     *New Jersey Military Academy.*  
 Glassboro—High School.  
 Glen Ridge—High School.  
 Gloucester City—High School.  
 Hackensack—High School (Township).  
 Hackettstown—  
     *Centenary Collegiate Institute.*  
     High School.  
 Haddonfield—High School.  
 Haddon Heights—High School.  
 Hamburg—High School (Township).  
 Hammonton—High School.  
 Hampton—High School.  
 Harrison—High School.  
 Hasbrouck Heights—High School.  
 High Bridge—High School.  
 Hightstown—  
     High School.  
     *Peddle Institute.*  
 Hoboken—  
     High School.  
     *Sacred Heart Academy.*  
     *Stevens Preparatory School.*  
 Hopewell—High School.  
 Irvington—High School.  
 Jamesburg—High School.  
 Jersey City—  
     Dickinson High School.  
     Lincoln High School.  
     *St. Aloysius Academy.*  
     *St. Dominic's Academy.*  
     *St. Peter's High School.*  
 Kearney—High School.
- Kenilworth—*Upsala College.*  
 Keyport—High School.  
 Lakewood—  
     High School.  
     *Lakewood School.*  
 Lambertville—High School.  
 Lawrenceville—*Lawrenceville School.*  
 Leonardo—High School (Township).  
 Leonia—High School.  
 Linton—High School.  
 Long Branch—  
     High School.  
     *Star of the Sea Academy.*  
 Madison—High School.  
 Manasquan—High School.  
 Matawan—High School.  
 Metuchen—High School.  
 Millburn—High School (Township).  
 Millville—High School.  
 Montclair—  
     *Academy.*  
     High School.  
 Moorestown—  
     *Friend's Academy.*  
     High School.  
 Morristown—  
     High School.  
     *Morris Academy.*  
     *Morristown School.*  
 Mount Holly—High School (Township).  
 Netcong—High School.  
 Newark—  
     *Academy.*  
     Barringer High School.  
     Central High School.  
     East Side High School.  
     South Side High School.  
     *St. Benedict's College, Academic Department.*  
     *St. Mary's Academy.*  
     *St. Vincent's Academy.*  
 New Brunswick—  
     High School.  
     *Rutgers Preparatory School.*  
     *St. Peter's School.*  
 Newton—High School.  
 Nutley—High School.  
 Ocean City—High School.  
 Ocean Grove—High School (Township).  
 Orange—  
     *Miss Beard's School for Girls.*  
     *Cartaret Academy.*  
     *Dearborn-Morgan School.*  
     High School.  
 Palmyra—High School.  
 Park Ridge—High School.  
 Passaic—High School.  
 Paterson—  
     High School.  
     *Hoover School.*  
 Paulsboro—High School.  
 Pemberton—High School.  
 Pennington—*Seminary.*  
 Penns Grove—High School.  
 Perth Amboy—High School.  
 Phillipsburg—High School.

## Plainfield—

*College of Mount St. Mary, Academic Department.*

High School.

*Leal School for Boys.*

North Plainfield High School.

Point Pleasant—High School.

Princeton—

High School.

*Preparatory School.*

Rahway—High School.

Ramsey—High School.

Red Bank—High School.

Ridgefield Park—High School.

Ridgewood—High School.

Rockaway—High School.

Roselle—High School.

Roselle Park—High School.

Rutherford—High School.

Salem—High School.

Shiloh—High School (Township).

Somerville—High School.

South Amboy—High School.

South Orange—

High School.

*Ston Hall College, Academic Department.*

South River—High School.

Successunna—High School (Township).

## Summit—

*Carlton Academy.*

High School.

*Kent Place School for Girls.*

Sussex—High School.

Toms River—High School (Township).

Town of Union—High School.

Trenton—

High School.

*Sacred Heart Academy.*

*St. Mary's High School.*

State Model High School.

Tuckahoe—High School (Township).

Tuckerton—High School.

Verona—High School.

Vineland—High School (Township).

Washington—High School.

Wenonah—*Military Academy.*

Westfield—High School.

West Hoboken—

High School.

*St. Michael's Monastery.*

West Orange—High School.

Westwood—High School.

Wildwood—High School.

Woodbine—High School.

Woodbridge—High School.

Woodbury—High School.

Woodstown—High School.

## NEW MEXICO.

Tentative list of public high schools accredited by the University of New Mexico for the year 1915-16.

The university has as yet made no formal list of accredited schools, but states that the work of the following schools is accepted in whole or in part fulfillment of the university admission requirements.

Admission requirements	Units.
Prescribed units:	15
English	3
Mathematics	2½
Language	2
Laboratory science	1
History	1
Electives	5½

Alamogordo—High School.

Albuquerque—

High School.

University of New Mexico, Preparatory Department.

Artesia—High School.

Aztec—High School.

Carlsbad—High School.

Carrizozo—High School.

Clayton—High School.

Clovis—High School.

Deming—High School.

Farmington—High School.

East Las Vegas—Las Vegas High School.

Portales—High School.

Raton—High School.

Roswell—High School.

Santa Fe—High School.

Santa Rosa—High School.

Tucumcari—High School.

Approved by the State Board of Education of New Mexico as offering not less than 14 units of college preparatory work.

Alamogordo—High School.

Artesia—High School.

Belen—High School.

Capitan—High School.

Carlsbad—High School.

Clayton—High School.

Clovis—High School.

Deming—High School.

East Las Vegas—Las Vegas High School.

Gallup—High School.

Las Cruces—High School.

Raton—High School.

Roswell—High School.

Santa Fe—High School.

Santa Rosa—High School.

Tucumcari—High School.

## NEW YORK.

Approved by the Department of Education of New York, October, 1915.

"In order to be approved, a secondary course must include at least 38 weeks a year, 18 periods a week, 45 minutes a period, with satisfactory standing."

Adams—High School.

Addison—High School.

Afton—High School.

Akron—High School.

Albany—

*Academy of the Holy Names.*

*Albany Academy.*

*Albany Academy for Girls.*

*Cathedral Academy.*

*Christian Brothers Academy.*

*Female Academy of Sacred Heart.*

High School.

Milne High School (Department of New York  
State College for Teachers).

*St. Agnes School.*

*St. Ann's Academy.*

*St. John's Academy.*

*St. Joseph's Academy.*

Albion—High School.

Alden—High School.

Alexander—High School.

Alexandria Bay—High School.

Alfred—Union School.

Allegany—

High School.

*St. Bonaventure's College.*

*St. Elizabeth's Academy.*

Almond—High School.

Altamont—High School.

Amenia—High School.

Amityville—

High School.

*Queen of the Rosary Academy.*

Amsterdam—

High School.

*St. Mary's Catholic Institute.*

Andes—Hilton Memorial High School.

Andover—High School.

Angelica—Wilsonian High School.

Angola—High School.

Antwerp—High School.

Arcade—High School.

Argyle—High School.

Attica—High School.

Auburn—High School.

Aurora—*Cayuga Lake Academy.*

Ausable Forks—High School.

Avoca—High School.

Avon—High School.

Babylon—High School.

Bainbridge—High School.

Baldwin—High School.

Baldwinsville—Free Academy.

Ballston Spa—High School.

Barker—High School.

Batavia—High School.

Bath—Haverling High School.

Bay Shore—High School.

Beacon—

Fishkill-on-Hudson High School.

Matteawan High School.

Belfast—High School.

Belleville—

High School.

*Union Academy of Belleville.*

Belmont—High School.

Bergen—High School.

Berlin—High School.

Binghamton—High School.

Black River—High School.

Blasdell—High School.

Bolivar—High School.

Boonville—High School.

Brasher Falls—Brasher and Stockholm High School.

Brentwood—*Academy of St. Joseph.*

Brewster—High School.

Bridgehampton—High School.

Brocton—High School.

Brookfield—High School.

Brooklyn—

*Adelphia Academy.*

Bay Ridge High School.

*Berkeley Institute for Young Ladies.*

Boys' High School.

*Brooklyn College, High School Department.*

Bushwick High School.

Commercial High School.

Eastern District High School.

Erasmus Hall High School.

Girls' High School.

Manual Training High School.

*Packer Collegiate Institute.*

*Polytechnic Institute of Brooklyn, Preparatory School.*

*St. Agnes Female Seminary.*

*St. Angela's Hall Academy.*

*St. Francis Academy.*

*St. Francis Xavier's Academy.*

*St. James Academy of Brooklyn.*

*St. John's Academy of Brooklyn.*

Brownville—Brownville-Glen Park High School.

Brushton—High School.

Buffalo—

*Academy of Sacred Heart.*

*Buffalo Seminary.*

*Canisius College, Academic Department.*

Central High School.

*Holy Angels Academy.*

*Holy Angels Collegiate Institute.*

Hutchinson—Central High School.

*Institute of Sisters of St. Joseph.*

Lafayette High School.

*Mary Immaculate Academy.*

Masten Park High School.

*Mount Mercy Academy.*

*Nichols School of Buffalo.*

*St. Joseph's Collegiate Institute.*

*St. Mary's Academy and Industrial Female School.*

South Park High School.

Technical High School.

Caledonia—High School.

- Cambridge—High School.  
 Camden—High School.  
 Camillus—High School.  
 Canajoharie—High School.  
 Canandaigua—Academy.  
 Canaseraga—High School.  
 Canastota—High School.  
 Candor—High School.  
 Canisteo—High School.  
 Canton—High School.  
 Cape Vincent—High School.  
 Carmel—  
     *Drew Seminary for Young Women.*  
     High School.  
 Carthage—  
     *Augustinian Academy.*  
     High School.  
     West Carthage High School.  
 Castle—High School.  
 Cato—High School.  
 Catskill—  
     Free Academy.  
     *St. Patrick's Academy.*  
 Cattaraugus—High School.  
 Cazenovia—  
     *Cazenovia Seminary.*  
     Union School.  
 Center Moriches—High School.  
 Central Square—High School.  
 Champlain—High School.  
 Charlotte—High School.  
 Chateaugay—High School.  
 Chatham—High School.  
 Chaumont—High School.  
 Chautauqua—High School.  
 Cherry Creek—High School.  
 Cherry Valley—High School.  
 Chester—High School.  
 Chittenango—Yates High School.  
 Churchville—High School.  
 Clarence—Parker High School.  
 Clayton—High School.  
 Clayville—High School.  
 Clifton Springs—High School.  
 Clinton—High School.  
 Clyde—High School.  
 Clymer—High School.  
 Cobleskill—High School.  
 Coeymans—High School.  
 Cohocton—High School.  
 Cohoes—  
     Egberts High School.  
     *St. Bernard's Academy.*  
 Cold Spring—Haldane High School.  
 Collins Center—High School.  
 Congers—High School.  
 Cooperstown—High School.  
 Copenhagen—High School.  
 Corfu—High School.  
 Corinth—High School.  
 Corning—  
     Corning Free Academy.  
     Northside High School.  
 Cornwall—High School.  
 Cornwall-on-Hudson—  
     High School.  
     *New York Military Academy.*  
     *The Stone School.*  
 Cortland—High School.  
 Coxsack—High School.  
 Cuba—High School.  
 Dansville—High School.  
 Delevan—High School.  
 Delhi—Delaware Academy and Union School.  
 Depew—High School.  
 Deposit—High School.  
 DeRuyter—High School.  
 Dexter—High School.  
 Dobbs Ferry—  
     High School.  
     *Misses Masters School.*  
 Dolgeville—High School.  
 Dover Plains—High School.  
 Downsview—High School.  
 Dryden—High School.  
 Dundee—High School.  
 Dunkirk—  
     High School.  
     *St. Mary's Academy.*  
 Earlville—High School.  
 East Aurora—High School.  
 East Bloomfield—High School.  
 East Hampton—High School.  
 East Pembroke—High School.  
 East Rochester—High School.  
 East Syracuse—High School.  
 Edmeston—High School.  
 Edwards—High School.  
 Elba—High School.  
 Elbridge—High School and Academy.  
 Elizabethtown—High School.  
 Ellenville—High School.  
 Ellipticville—High School.  
 Ellington—High School.  
 Elmhurst—Newtown High School.  
 Elmira—Free Academy.  
 Elmira Heights—High School.  
 Endicott—Union-Endicott High School.  
 Essex—High School.  
 Evans Mills—High School.  
 Fabius—High School.  
 Fair Haven—High School.  
 Fairport—High School.  
 Falconer—High School.  
 Far Rockaway—High School.  
 Fayetteville—High School.  
 Fillmore—High School.  
 Florida—S. S. Seward Institute.  
 Flushing—High School.  
 Fonda—High School.  
 Fordham—*St. John's College High School, Fordham*  
     *University.*  
 Forestville—Free Academy.  
 Fort Ann—High School.  
 Fort Covington—High School.  
 Fort Edward—High School.  
 Fort Plain—High School.  
 Frankfort—High School.  
 Franklin—Delaware Literary Institute and Union  
     School.  
 Franklinville—Ten Broeck Free Academy.  
 Freeport—High School.  
 Freeville—  
     High School.  
     Hunt Memorial School.  
 Frewsburg—High School.

- Friendship—High School.  
 Fulton—High School.  
 Fultonville—High School.  
 Gainesville—High School.  
 Garden City—  
     *Cathedral School of St. Mary.*  
     *St. Paul's School.*  
 Gardenville—High School.  
 Geneva—  
     High School.  
     *St. Francis de Sales School.*  
 Georgetown—High School.  
 Gilbertsville—High School.  
 Glen Cove—High School.  
 Glens Falls—  
     *Academy.*  
     High School.  
     *St. Mary's Academy.*  
 Gloversville—High School.  
 Goshen—High School.  
 Gouverneur—High School.  
 Gowanda—High School.  
 Granville—High School.  
 Great Neck—High School.  
 Greene—High School.  
 Greenport—High School.  
 Greenwich—High School.  
 Griegsville—High School.  
 Griffin Corners—Griffin-Fleischmann's High School.  
 Groton—High School.  
 Hamburg—High School.  
 Hamilton—High School.  
 Hammondsport—High School.  
 Hancock—High School.  
 Hannibal—High School.  
 Hardwick—*Hardwick Seminary, Academic Department.*  
 Harrison—  
     *Heathcote School.*  
     High School.  
 Harrisville—High School.  
 Hastings upon Hudson—Hastings-on-Hudson High School.  
 Haverstraw—High School.  
 Hempstead—High School.  
 Herkimer—High School.  
 Hermon—High School.  
 Hicksville—High School.  
 Highland—High School.  
 Highland Falls—  
     High School.  
     *Lady Cliff Academy.*  
 Hillsdale—High School.  
 Hilton—High School.  
 Hobart—High School.  
 Holland Patent—High School.  
 Holley—High School.  
 Homer—Academy and Union School.  
 Honeoye—High School.  
 Honeoye Falls—High School.  
 Hoosick Falls—  
     High School.  
     *St. Mary's Academy.*  
 Hornell—High School.  
 Horseheads—High School.  
 Houghton—*Houghton Wesleyan Methodist Seminary.*  
 Hudson—High School.  
 Hudson Falls—High School.  
 Hunter—High School.  
 Huntington—High School.  
 Ilion—High School.  
 Indian Lake—Indian Lake School.  
 Interlaken—High School.  
 Irvington—High School.  
 Islip—High School.  
 Ithaca—  
     *Cascadilla School Association.*  
     High School.  
     *The Sturgis School.*  
 Jamaica—High School.  
 Jamestown—High School.  
 Jamesville—High School.  
 Jefferson—High School.  
 Johnstown—High School.  
 Jordan—Free Academy.  
 Katonah—High School.  
 Keeseville—High School.  
 Kenmore—High School.  
 Keuka Park—*Keuka Institute.*  
 Kingston—  
     Kingston Free Academy.  
     Ulster Free Academy.  
 Lackawanna—High School.  
 Lake George—High School.  
 Lakemont—*Palmer Institute, Starkey Seminary.*  
 Lake Placid—High School.  
 Lakewood—High School.  
 Lancaster—  
     High School.  
     *St. Mary's High School.*  
 Lansingburg—High School.  
 Lawrence—High School.  
 Leonardsville—High School.  
 Le Roy—High School.  
 Lestershire—High School.  
 Liberty—High School.  
 Lima—*Genesee Wesleyan Seminary.*  
 Limestone—High School.  
 Little Falls—  
     High School.  
     *St. Mary's Academy.*  
 Little Valley—High School.  
 Liverpool—High School.  
 Livingston Manor—High School.  
 Livonia—High School.  
 Lockport—  
     High School.  
     *St. Joseph's Academy and Industrial Female School.*  
 Locust Valley—*Friends Academy.*  
 Long Island City—Bryant High School.  
 Lowville—Academy and Union School.  
 Luzerne—Hadley Luzerne High School.  
 Lynbrook—High School.  
 Lyndonville—High School.  
 Lyons—High School.  
 Lyons Falls—High School.  
 Macedon—High School.  
 McGraw—McGrawville High School.  
 Machias—High School.  
 Madrid—High School.  
 Malone—  
     Franklin Academy.  
     *St. Joseph's Academy of Malone.*

Mamaroneck—  
     High School.  
 Rye Neck High School.  
 Manchester—High School.  
 Manlius—  
     High School.  
     *St. John's Military School.*  
 Marathon—High School.  
 Marcellus—High School.  
 Margaretville—High School.  
 Marion—High School.  
 Massena—High School.  
 Mayville—High School.  
 Mechanicsville—High School.  
 Medina—High School.  
 Mexico—Academy and High School.  
 Middleburg—High School.  
 Middleport—High School.  
 Middletown—High School.  
 Middleville—High School.  
 Millford—High School.  
 Millbrook—Memorial School.  
 Millerton—High School.  
 Mineville—High School.  
 Minoa—High School.  
 Mohawk—High School.  
 Molra—High School.  
 Monroe—  
     High School.  
     *The Mackenzie School.*  
 Montgomery—High School.  
 Monticello—High School.  
 Montour Falls—  
     *Cook Academy.*  
     Union School.  
 Mooers—High School.  
 Moravia—High School.  
 Moriah—*Sherman Collegiate Institute.*  
 Morris—High School.  
 Morrisville—High School.  
 Mount Hope—*St. Clare's School.*  
 Mount Kisco—High School.  
 Mount Morris—High School.  
 Mount Vernon—High School.  
 Naples—High School.  
 Newark—High School.  
 Newark Valley—High School.  
 New Berlin—High School.  
 New Brighton—  
     Curtis High School.  
     *Staten Island Academy.*  
 Newburgh—Free Academy.  
 Newfield—High School.  
 New Hartford—High School.  
 Newport—High School.  
 New Rochelle—  
     High School.  
     *Ursuline Seminary.*  
 New Woodstock—High School.  
 New York—  
     *Academy of Mount St. Ursula.*  
     *All Hallows Institute.*  
     *All Saints Academy.*  
     *Barnard School for Boys.*  
     *Barnard School for Girls.*  
     *Berkeley School.*  
     *Cathedral High School.*

New York—Continued.  
     *Charlton School.*  
     *College of Mount St. Vincent, Academic Depart-*  
         *ment.*  
     *Columbia Grammar School.*  
     *(The) Culler School.*  
     De Witt Clinton High School.  
     *De La Salle Institute.*  
     *Dominican Academy.*  
     *Ethical Culture School.*  
     Evander Childs High School.  
     *Female Academy of Sacred Heart.*  
     *Friends' Seminary.*  
     *Hamilton Institute for Boys.*  
     *Hamilton Institute for Girls.*  
     High School of Commerce.  
     *Holy Cross Academy of Manhattan.*  
     *Horace Mann School (Teachers College).*  
     Hunter College, High School Department.  
     *Irving School.*  
     Julia Richman High School.  
     *La Salle Academy.*  
     *Manhattan College, Academic Department.*  
     Morris High School.  
     *New York Collegiate Institute.*  
     *Regis High School.*  
     *St. Ann's Academy.*  
     *St. Catharine's Academy School of New York.*  
     *St. Gabriel's Academy of Manhattan.*  
     *St. Lawrence's Academy of Manhattan.*  
     *St. Walburga's Academy.*  
     *Scudder School for Girls.*  
     Stuyvesant High School.  
     Townsend Harris Hall (Preparatory Depart-  
         ment of the College of the City of New York.  
     *Trinity School.*  
     *Ursuline Academy.*  
     Wadleigh High School.  
     Washington Irving High School.  
     *Xavier High School, College of St. Francis Xavier.*  
 Niagara Falls—  
     *De Veaux School.*  
     High School.  
 Niagara University—*Niagara University, Academic*  
     *Department.*  
 Nichols—High School.  
 Norfolk—High School.  
 North Chili—*A. M. Chestbrough Seminary.*  
 North Cohocton—North Cohocton and Atlanta  
     Union High School.  
 North Collins—High School.  
 North Creek—High School.  
 Northport—High School.  
 North Tarrytown—High School.  
 North Tonawanda—High School  
 Northville—High School.  
 Norwich—High School.  
 Norwood—High School.  
 Nunda—High School.  
 Nyack—  
     High School.  
     *Wilson Memorial Academy.*  
 Oakfield—High School.  
 Ocean Side—High School.  
 Ogdensburg—*St. Mary's Academy.*  
 Olean—High School.  
 Oneida—High School.

Oneonta—High School.  
 Onondaga Valley—Onondaga Free Academy.  
 Ontario—High School.  
 Orchard Park—High School.  
 Oriskany Falls—High School.  
 Ossining—  
     High School.  
     *Mount Pleasant Academy.*  
     *(The) Ossining School.*  
 Oswego—  
     High School.  
     *St. Paul's Academy.*  
 Otego—High School.  
 Ovid—High School.  
 Owego—Free Academy.  
 Oxford—Academy and Union School.  
 Oyster Bay—High School.  
 Painted Post—High School.  
 Palmyra—Classical High School.  
 Parish—High School.  
 Parkers—High School.  
 Patchogue—High School.  
 Pawling—  
     High School.  
     *Pawling School.*  
 Pearl River—High School.  
 Peekskill—  
     Drum Hill High School.  
     *Military Academy.*  
     Oaksides High School.  
     *Westchester Military Academy.*  
 Pelham Manor—Pelham High School.  
 Penn Yan—Academy.  
 Perry—High School.  
 Phelps—Union and Classical School.  
 Philadelphia—High School.  
 Philmont—High School.  
 Phoenix—High School.  
 Piermont—Tappan Zee High School.  
 Pike—Seminary High School.  
 Pine Plains—Seymour Smith Academy.  
 Pittsford—High School.  
 Plattsburg—  
     *D' Youville Academy.*  
     High School.  
 Pleasantville—  
     *Hebrew Sheltering Guardian Society High School.*  
     High School.  
 Poland—High School.  
 Port Byron—High School.  
 Port Chester—High School.  
 Port Henry—  
     *Champlain Academy.*  
     High School.  
 Port Jefferson—High School.  
 Port Jervis—High School.  
 Port Leyden—High School.  
 Portville—High School.  
 Port Washington—High School.  
 Potsdam—High School.  
 Poughkeepsie—High School.  
 Prattsburg—Franklin Academy and Prattsburg  
     High School.  
 Pulaski—Academy and Union School.  
 Randolph—  
     *Chamberlain Military Institute.*  
     High School.

Ravena—High School.  
 Red Creek—High School.  
 Red Hook—High School.  
 Remsen—High School.  
 Rensselaer—  
     High School.  
     *St. John's Academy.*  
 Rheinebeck—High School.  
 Richfield Springs—High School.  
 Richmond Hill—High School.  
 Richmondville—High School.  
 Ripley—High School.  
 Riverhead—High School.  
 Rochester—  
     *Catholic High School.*  
     *Female Academy of Sacred Heart.*  
     High School, East.  
     High School, West.  
     *Nazareth Academy.*  
     *Wagner Memorial Lutheran College.*  
 Rockville Center—South Side High School.  
 Rome—  
     *Academy of the Holy Names.*  
     Free Academy.  
     *St. Aloysius Academy.*  
 Roscoe—High School.  
 Roslyn—High School.  
 Round Lake—*Summer Institute.*  
 Rouses Point—High School.  
 Roxbury—High School.  
 Rushford—High School.  
 Rushville—High School.  
 Russell—Knox Memorial High School.  
 Rye—  
     High School.  
     *Seminary.*  
 Sacket Harbor—Sacket High School.  
 Sag Harbor—Pierson High School.  
 St. Johnsville—High School.  
 St. Regis Falls—High School.  
 Salamanca—High School.  
 Salem—Washington Academy.  
 Sandy Creek—High School.  
 Saranac Lake—High School.  
 Saratoga Springs—  
     High School.  
     *St. Faith's Academy.*  
 Saugerties—High School.  
 Sauquoit—High School.  
 Savannah—High School.  
 Savona—High School.  
 Sayville—High School.  
 Schaghticoke—High School.  
 Schenectady—  
     High School  
     *St. Joseph's Academy.*  
 Schenectady—High School.  
 Schoharie—High School.  
 Schuylerville—High School.  
 Scio—High School.  
 Scotia—High School.  
 Scottsville—High School.  
 Sea Cliff—High School.  
 Seneca Falls—Mynderse Academy.  
 Sharon Springs—High School.  
 Shelter Island—High School.  
 Sherburne—High School.



- Sherman—High School.  
 Shortsville—High School.  
 Sidney—High School.  
 Silver Creek—High School.  
 Silver Springs—High School.  
 Sinclairville—High School.  
 Skaneateles—High School.  
 Sodus—High School.  
 Solvay—High School.  
 South Dayton—High School.  
 South Glens Falls—High School.  
 South Otsello—High School.  
 Southampton—High School.  
 Southold—High School.  
 Spencer—High School.  
 Spencerport—High School.  
 Spring Valley—High School.  
 Springville—Griffith Institute and Union School.  
 Stamford—Seminary and Union School.  
 Stillwater—High School.  
 Stony Point—High School.  
 Suffern—High School.  
 Syracuse—  
     *Academy of Sacred Heart.*  
     Central High School.  
     *Christian Brothers Academy.*  
     *Goodyear-Burlingame School.*  
     North High School.  
     *St. John's Catholic Academy.*  
     *St. Lucy's Academy.*  
     Technical High School.  
     *Travis Preparatory School.*  
 Tannersville—High School.  
 Tarrytown—  
     *Hackley School.*  
     *The Knox School.*  
     *Marymount Secondary School.*  
     Washington Irving High School.  
 Theresa—High School.  
 Ticonderoga—High School.  
 Tompkinsville—*Augustinian Academy.*  
 Tonawanda—High School.  
 Troy—  
     *Emma Willard School.*  
     High School.  
     *La Salle Institute.*  
     *St. Joseph's Academy.*  
     *St. Patrick's Academy of Troy.*  
     *St. Peter's Academy.*  
     *Troy Academy.*  
 Trumansburg—High School.  
 Tuckahoe—Waverly High School.  
 Tully—High School.  
 Tupper Lake—High School.  
 Tuxedo Park—Tuxedo High School.  
 Unadilla—High School.  
 Union Springs—  
     High School.  
     *Oakwood Seminary.*  
 Utica—  
     *Catholic Academy.*  
     *Female Academy.*  
     *Free Academy.*  
 Valatie—High School.  
 Valley Falls—High School.  
 Valhalla—*Chappagua Mountain Institute.*  
 Vernon—High School.  
 Verona—High School.  
 Victor—High School.  
 Waddington—High School.  
 Walden—High School.  
 Wallkill—High School.  
 Walton—High School.  
 Walworth—High School.  
 Warner—High School.  
 Warrensburg—High School.  
 Warsaw—High School.  
 Warwick—Institute.  
 Waterford—High School.  
 Waterloo—High School.  
 Watertown—  
     High School.  
     *Immaculate Heart Academy.*  
 Waterville—High School.  
 Watervliet—  
     *Academy.*  
     High School.  
     *St. Patrick's Academy.*  
 Watkins—High School.  
 Waverly—High School.  
 Wayland—High School.  
 Webster—High School.  
 Weedsport—High School.  
 Wells—High School.  
 Wellsville—High School.  
 Westchester—*Clason Point Military Academy.*  
 West Hampton Beach—High School.  
 West Winfield—High School.  
 Westfield—Academy and Union School.  
 West New Brighton—*Westerleigh Collegiate Institute.*  
 Westport—High School.  
 White Plains—High School.  
 Whitehall—High School.  
 Whitesboro—High School.  
 Whitney Point—High School.  
 Williamson—High School.  
 Williamsville—High School.  
 Willsboro—High School.  
 Wilson—High School.  
 Windham—High School.  
 Windsor—High School.  
 Woodhull—High School.  
 Wolcott—Leavenworth Institute and Wolcott High School.  
 Worcester—High School.  
 Wyoming—Middlebury Academy and Union School.  
 Yonkers—  
     High School.  
     *Philippae Manor School.*

## NORTH CAROLINA.

Schools accredited by the University of North Carolina, December, 1915.

Units.

Admission requirements.....	14.0
Prescribed units:	
English.....	3.0
Mathematics.....	3.0
History.....	2.0
Greek.....	2.0
Latin.....	3.7
Elective.....	0.3
Or, instead of 3 last-named:	
Latin.....	3.7
French or German.....	2.0
Elective.....	0.3
Or these:	
French.....	2.0
German.....	2.0
Science.....	1.0
Elective.....	1.0

## Asheville—

*Asheville School.*  
*Bingham School.*  
 City High School.  
*Normal and Collegiate Institute.*  
*St. Genevieve's Academy.*

Brevard—*Institute.*

Cary—High School.  
 Chapel Hill—High School.  
 Charlotte—

City High School.  
*Horne Military School.*

## Concord—High School.

## Durham—

City High School.  
*Trinity Park School.*

## Elizabeth City—High School.

## Enfield—High School.

Flat Rock—*Fleet School.*

## Fremont—High School.

## Goldsboro—City High School.

## Greensboro—City High School.

## Greenville—High School.

## Henderson—City High School.

## Hendersonville—

High School.  
*Fassfern School.*  
*Blue Ridge School for Boys.*

## Jamestown—High School.

## Laurinburg—High School.

## Lenoir—High School.

## Lumberton—High School.

## Marion—High School.

Mars Hill—*College.*

## Monroe—High School.

Oak Ridge—*Institute.*

## Pleasant Garden—High School.

## Raleigh—City High School.

Rutherfordton—*Westminster School.*

## Salisbury—City High School.

## Tarboro—High School.

## Warrenton—High School.

Whitsett—*Institute.*

## Wilmington—City High School.

## Wilson—City High School.

## Winston-Salem—

City High School.  
*Salem Academy.*

## NORTH DAKOTA.

Approved by the State board of education and accredited by the University of North Dakota, November, 1915.

Units.

University admission requirements.....	15
Prescribed units:	
English.....	3
Mathematics.....	1
Three units in 1 and 2 in another; or 2 units in each of 3 of the following 4 groups—	
Foreign language (at least 2 units must be in the same language); sciences; social	
sciences; mathematics.....	6
Electives.....	5

## Beach—Agricultural High School.

## Bismarck—High School.

## Bottineau—

High School.  
 State School of Forestry.

## Cando—High School.

## Carrington—Agricultural High School.

## Casselton—High School.

## Cavaller—High School.

## Cooperstown—High School.

## Devils Lake—High School.

## Dickinson—High School.

## Drayton—High School.

## Edgeley—High School.

## Enderlin—High School.

## Fargo—

*College Academy.*

High School.

Model High School of North Dakota Agricultural College.

*Sacred Heart Academy.*

## Grafton—Agricultural High School.

Grand Forks—High School.  
 Hankinson—High School.  
 Harvey—High School.  
 Hillsboro—High School.  
 Hope—High School.  
 Hunter—High School.  
 Jamestown—

*College Academy.*

High School.

*St. John's Academy.*

Kenmare—High School.

Lakota—High School.

La Moure—Agricultural High School

Langdon—High School.

Larimore—High School.

Lidgerwood—High School.

Lisbon—High School.

Mandan—High School.

Mayville—High School.

Michigan—High School.

Minot—High School.

Minto—High School.

New Rockford—High School.

Oakes—High School.

Park River—High School.

Pembina—High School.

Rolla—High School.

Rugby—High School.

St. Thomas—High School.

University—Model High School of University of North Dakota.

Valley City—High School.

Velva—Agricultural High School.

Wahpeton—

High School.

State School of Science.

Williston—High School.

## OHIO.

"First-grade" secondary schools approved by the department of public instruction and accredited by Ohio State University for the year 1915-16.<sup>1</sup>

	Units.
University admission requirements.....	15
The following distribution of units is strongly recommended:	
English.....	3
Mathematics.....	2
History.....	1
Science.....	1
Foreign language.....	4
Electives.....	4

"If the distribution of units does not meet the above recommendation, the student will be required to carry courses in the university to make up the deficiency."

Ada—  
 High School.  
*Ohio Northern University, Preparatory Department.*

Adena—High School.

Akron—

*Bucfel Academy.*

Central High School.

South High School.

West High School.

Albany—High School.

Alexandria—St. Albans High School.

Alliance—High School.

Amanda—High School.

Amelia—High School.

Amesville—High School.

Amherst—High School.

Andover—High School.

Anna—High School.

Ansonia—High School.

Antioch—*Academy.*

Antwerp—Carryall Township High School.

Arcadia—Washington Township High School.

Arcanum—High School.

Archbold—High School.

Arlington—High School.

Ashland—High School.

Ashley—High School.

Ashtabula—High School.

Ashtabula Harbor—High School.

Ashville—High School.

Athens—

Amesville Township High School.

High School.

Atlanta—Perry Township High School.

Attica—High School.

Austintown—

*Grand River Institute.*

High School.

Bainbridge—High School.

Baltimore—High School.

Barberton—High School.

Barnesville—

*Friends Boarding School.*

High School.

Basil—High School.

Batavia—High School.

Bath—High School.

Beallsville—Sunbury High School.

Bedford—High School.

Bellaire—High School.

Bellbrook—Sugar Creek Township High School.

Belle Center—McArthur-Huntsville High School.

Bellefontaine—High School.

Bellevue—High School.

Belleville—High School.

Belpre—High School.

Benton Ridge—High School.

Berea—

*Baldwin-Wallace College Academy.*

High School.

Berlin Heights—High School.

<sup>1</sup> The department of public instruction approves only the public high schools.

Bethesda—High School.  
 Beverly—High School.  
 Bidwell—Bidwell-Porter Township High School.  
 Bloomdale—High School.  
 Bloomville—Bloom Township High School.  
 Bluffton—

*College Academy.*  
 High School.

Bowling Green—High School.  
 Bradford—High School.  
 Bradner—High School.  
 Brecksville—High School.  
 Bremen—High School.  
 Bridgeport—High School.  
 Brink Haven—High School.  
 Brookville—High School.  
 Brunswick—Hinckley Township High School.  
 Bryan—High School.  
 Bucyrus—High School.  
 Burlington—High School.  
 Butler—High School.  
 Byesville—High School.  
 Cadiz—High School.  
 Caldwell—High School.  
 Cambridge—High School.  
 Camden—High School.  
 Campbellstown—Jackson Township High School.  
 Canal Dover—High School.  
 Canal Fulton—High School.  
 Canal Winchester—High School.  
 Canfield—Joint High School.  
 Canton—

Central High School.  
 North High School.

Cardington—High School.  
 Carey—High School.  
 Carroll—High School.  
 Carrollton—High School.  
 Cedarville—High School.  
 Celina—High School.  
 Centerburg—High School.  
 Chagrin Falls—High School.  
 Chardon—High School.  
 Chauncey—High School.  
 Chesterhill—Marion Township High School.  
 Chesterland—Chester Township High School.  
 Chicago Junction—High School.  
 Chillicothe—High School.  
 Cincinnati—

Clifton High School.  
*College Preparatory School for Girls.*  
*Franklin School.*

Hartwell High School.  
 Hughes High School.  
 Madisonville High School.  
*Ohio Mechanics' Institute.*  
 Pleasant Ridge High School.  
*University School.*  
 Walnut Hills High School.  
 West Night High School.  
 Woodward High School.

Circleville—

High School.  
 Jackson Township High School.  
 Pickaway Township High School.

Clarksburg—Deerfield Township High School.

Cleveland—

Central High School.  
*Central Institute.*  
 East High School.  
 East Technical High School.  
 Glenville High School.  
 High School of Commerce.  
 Lincoln High School.  
 South High School.  
*University School.*

West Technical High School.

Cleveland Heights—High School.

Clinton—High School.

Clyde—High School.

Coalton—High School.

Coldwater—

High School.

Washington Township High School.

College Corner—High School.

College Hill—*Ohio Military Institute.*

Columbiana—High School.

Columbus—

*Academy.*

Clinton High School.

East High School.

High School of Commerce.

North High School.

*St. Marys of the Springs.*

*School for Girls.*

South High School.

*University School.*

West High School.

Columbus Grove—High School.

Commercial Point—Scioto Township High School.

Conneaut—High School.

Continental—High School.

Convoy—High School.

Coolville—High School.

Copley—High School.

Corning—High School.

Cortland—High School.

Coshocton—High School.

Covington—High School.

Crestline—High School.

Creston—High School.

Crooksville—High School.

Croton—Hartford Township High School.

Cumberland—High School.

Custar—

High School.

Milton Township High School.

Cuyahoga Falls—

High School.

Stow Township High School.

Cygnets—High School.

Dalton—High School.

Damascus—Goshen Township High School.

Danville—Buckeye City High School.

Dayton—

Harrison Township High School.

Jefferson Township High School.

Madison Township High School.

*New Lyme Institute.*

Parker High School.

*St. Aloysius Academy.*

*St. Mary's Institute.*

## Dayton—Continued.

Steele High School.  
 Stivers Manual Training High School.  
 Violet Township High School.  
 Washington Township High School.  
 Defiance—High School.  
 De Graff—High School.  
 Delaware—  
     High School.  
     Liberty Township High School.  
 Delphos—High School.  
 Delta—High School.  
 Dennison—High School.  
 Derby—High School.  
 Dola—Washington Township High School.  
 Dorset—High School.  
 Dover—High School.  
 Doylstown—High School.  
 Dresden—High School.  
 Dublin—High School.  
 Dunkirk—High School.  
 Duval—Madison Township High School.  
 East Cleveland—High School.  
 East Liverpool—High School.  
 Eaton—High School.  
 East Palestine—High School.  
 Edgerton—High School.  
 Edison—High School.  
 Edon—High School.  
 Elmore—High School.  
 Elyria—High School.  
 Englewood—Randolph Township High School.  
 Enon—Madriver Township High School.  
 Etna—High School.  
 Euclid—  
     Central High School.  
     Shore High School.  
 Fairfield—Bath Township High School.  
 Farmdale—Johnston Township High School.  
 Farmersville and Jackson—High School.  
 Fayette—High School.  
 Findlay—High School.  
 Flushing—High School.  
 Forest—High School.  
 Forgry—Bethel Township High School.  
 Fort Recovery—High School.  
 Fostoria—High School.  
 Frankfort—High School.  
 Franklin—High School.  
 Frazesburg—High School.  
 Fredericksburg—High School.  
 Fredericktown—High School.  
 Freeport—High School.  
 Fremont—High School.  
 Gahanna—High School.  
 Galena—High School.  
 Gallon—High School.  
 Gallipolis—  
     Academy High School.  
     Lincoln High School.  
 Gambler—High School.  
 Garrettsville—High School.  
 Geneva—High School.  
 Georgetown—High School.  
 Germantown—High School.  
 Gibsonburg—High School.  
 Girard—High School.

Glendale—High School.  
 Glenford—Harrison Township High School.  
 Gloucester—High School.  
 Gomer—Sugar Creek Township High School.  
 Good Hope—Wayne Township High School.  
 Goshen—High School.  
 Grafton—High School.  
 Grand View Heights—High School.  
 Granville—  
     Doane Academy.  
     High School.  
 Greenfield—High School.  
 Greenspring—High School.  
 Greenville—High School.  
 Greenwich—High School.  
 Grove City—High School.  
 Groveport—High School.  
 Guysville—Stewart-Rome Township High School.  
 Hamilton—High School.  
 Hanover—High School.  
 Harrison—High School.  
 Hartford—High School.  
 Hartville—High School.  
 Hartwell—St. Bernard High School.  
 Hebron—High School.  
 Hicksville—High School.  
 Highland—High School.  
 Hilliards—High School.  
 Hillsboro—High School.  
 Hiram—High School.  
 Holgate—High School.  
 Homes—Burlington Township High School.  
 Homerville—Homer Township High School.  
 Hopedale—High School.  
 Hudson—High School.  
 Huron—High School.  
 Ironton—High School.  
 Irwin—Union Township High School.  
 Jacksonville—High School.  
 Jamestown—High School.  
 Jefferson—High School.  
 Jeffersonville—High School.  
 Jewett—High School.  
 Johnstown—High School.  
 Junction City—High School.  
 Kalida—High School.  
 Kent—  
     High School.  
     Streetsboro High School.  
 Kenton—High School.  
 Kings Mills—High School.  
 Kingston—High School.  
 Kingsville—High School.  
 Kinsman—  
     High School.  
     Vernon Township High School.  
 Lafayette—Jackson Joint High School.  
 Lake—Uniontown High School.  
 Lakeside—Danbury Township High School.  
 Lakewood—High School.  
 Lancaster—  
     High School.  
     Rushville Township High School.  
 Lebanon—High School.  
 Leesburg—High School.  
 Lees Creek—Wayne Township High School.  
 Leetonia—High School.

- Leipsic—High School.  
 Le Roy—High School.  
 Lewisburg — Lewisburg - Harrison Joint High School.  
 Lexington—High School.  
 Liberty Center—High School.  
 Lima—High School.  
 Lisbon—High School.  
 Lockland—High School.  
 Lockwood—Greene Township High School.  
 Lodi—High School.  
 Logan—High School.  
 London—  
     High School.  
     Monroe Township High School.  
 Lorain—High School.  
 Loudonville—High School.  
 Louisville—High School.  
 Loveland—High School.  
 Lowell—High School.  
 Lowellville—High School.  
 Lucasville—Valley Township High School.  
 Lynchburg—High School.  
 McArthur—High School.  
 McClure—Damascus Township High School.  
 McComb—  
     High School.  
     Union Township High School.  
 Madison—High School.  
 McConnellsville—Malta - McConnellsville High School.  
 Manchester—High School.  
 Mansfield—High School.  
 Mantua—High School.  
 Marion—  
     High School.  
     St. Mary's School.  
 Marietta—High School.  
 Martinsburg—High School.  
 Martins Ferry—High School.  
 Martinsville—High School.  
 Marysville—  
     High School.  
     Jerome Township High School.  
 Mason—High School.  
 Massillon—High School.  
 Maumee—High School.  
 Mechanicsburg—High School.  
 Medina—  
     Granger Township High School.  
     High School.  
 Melmore—Eden Township High School.  
 Mendon—Mendon-Union High School.  
 Metamora—High School.  
 Miamisburg—High School.  
 Middlefield—High School.  
 Middleport—High School.  
 Middletown—High School  
 Milan—High School.  
 Milford—High School.  
 Milford Center—Union High School.  
 Millersburg—High School.  
 Mineral City—High School.  
 Minerva—High School.  
 Mingo Junction—High School.  
 Minster—High School.  
 Monroe—Lamon Township High School.  
 Monroeville—High School.  
 Montpelier—High School.  
 Morrow—High School.  
 Mount Blanchard—High School.  
 Mount Eaton—Paint Township High School.  
 Mount Gilead—High School.  
 Mount Healthy—High School.  
 Mount Orab—High School.  
 Mount Pleasant—High School.  
 Mount Sterling—High School.  
 Mount Vernon—High School.  
 Mount Victory—High School.  
 Murray—High School.  
 Napoleon—High School.  
 Nelsonville—High School.  
 Nevada—High School.  
 New Albany—High School.  
 Newark—High School.  
 New Bremen—High School.  
 New Carlisle—High School.  
 Newcomerstown—High School.  
 New Concord—High School.  
 New Holland—High School.  
 New Lexington—High School.  
 New London—High School.  
 New Madison—High School.  
 New Matamoras—Matamoras High School.  
 New Paris—Jefferson Township High School.  
 New Philadelphia—High School.  
 New Richmond—High School.  
 New Straitsville—High School.  
 New Vienna—High School.  
 New Washington—High School.  
 Newton Falls—High School.  
 Niles—High School.  
 North Baltimore—High School  
 North Hampton—German Township High School.  
 North Lewisburg—High School.  
 North Lima—High School.  
 Norwalk—High School.  
 Norwood—High School.  
 Nova—Troy Township High School.  
 Oak Harbor—High School.  
 Oak Hill—High School.  
 Oberlin—  
     Academy.  
     High School.  
 Ohio City—High School.  
 Okeana—Morgan Township High School.  
 Orrville—High School.  
 Orwell—High School.  
 Osborn—High School.  
 Ostrander—High School.  
 Ottawa—  
     Blanchard Township High School.  
     High School.  
 Ottoville—High School.  
 Oxford—  
     College Academy.  
     High School.  
 Painesville—High School.  
 Pandora—Riley Township High School.  
 Pataskala—High School.  
 Paulding—High School.  
 Payne—High School.  
 Peebles—High School.  
 Pemberville—High School.

- Perry—High School.  
 Perrysburg—High School.  
 Pickerington—Violet Township High School.  
 Piketon—High School.  
 Pioneer—High School.  
 Piqua—High School.  
 Plain City—High School.  
 Plattsburg—Harmony Township High School.  
 Pleasant Hill—High School.  
 Pleasantville—High School.  
 Plymouth—High School.  
 Pomeroy—High School.  
 Port Clinton—High School.  
 Portsmouth—High School.  
 Port William—Liberty Township High School.  
 Prairie Depot—High School.  
 Prospect—High School.  
 Quaker City—High School.  
 Ravenna—High School.  
 Rawson—High School.  
 Reynoldsburg—High School.  
 Richwood—High School.  
 Rio Grande—Raccoon Township High School.  
 Ripley—High School.  
 Rising Sun—High School.  
 Rockford—High School.  
 Rosedale—Pike Township High School.  
 Roseville—High School.  
 Rosewood—Adams Township High School.  
 Roundhead—High School.  
 Rudolph—High School.  
 Rushsylvania—High School.  
 Sahina—High School.  
 St. Clairsville—High School.  
 St. Henry—High School.  
 St. Martin—*Ursuline Academy*.  
 St. Marys—High School.  
 St. Paris—High School.  
 Salem—High School.  
 Salineville—High School.  
 Sandusky—High School.  
 Savannah—*Academy*.  
 Sardinia—High School.  
 Scioto—  
     *Academy High School*.  
     High School.  
 Sebring—High School.  
 Selma—High School.  
 Seneca—High School.  
 Seville—High School.  
 Shadyside—High School.  
 Sharon Center—Sharon Township High School.  
 Shawnee—High School.  
 Shelby—High School.  
 Sherwood—  
     Delaware Township High School.  
     High School.  
 Shiloh—High School.  
 Shreve—High School.  
 Sidney—High School.  
 Smithfield—High School.  
 Somerset—High School.  
 Somerton—Somerset Township High School.  
 South Charleston—High School.  
 South Euclid—Euclid Township High School.  
 South Salem—Buckskin Township High School.  
 South Solon—Stokes Township High School.  
 Spencerville—High School.  
 Springfield—  
     Clifton Township High School.  
     High School.  
     *St. Raphael's School*.  
 Steubenville—High School.  
 Strasburg—High School.  
 Strongsville—High School.  
 Stryker—High School.  
 Sugarcreek—High School.  
 Summit Station—Lima Township High School.  
 Sunbury—High School.  
 Swanton—High School.  
 Sycamore—High School.  
 Sylvania—High School.  
 Tadmor—Butler Township High School.  
 Terre Haute—Mad River Township High School.  
 Thornville—High School.  
 Thurston—Walnut Township High School.  
 Tiffin—  
     *College of the Ursuline Sisters*.  
     *Heidelberg Academy*.  
     High School.  
 Tippecanoe City—Bethel Township High School.  
 Toledo—  
     Scott High School.  
     *Smead School*.  
     Waite High School.  
 Toronto—High School.  
 Trenton—High School.  
 Troy—High School.  
 Twinsburg—High School.  
 Union City—High School.  
 Upper Sandusky—High School.  
 Urbana—  
     Concord Township High School.  
     High School.  
     Salem Township High School.  
     *University School*.  
 Ulrichsville—High School.  
 Utica—High School.  
 Valley City—Liverpool Township High School.  
 Van Buren—High School.  
 Van Wert—Convoy Township High School.  
 Vermilion—High School.  
 Versailles—High School.  
 Vincent—Barlow Township High School.  
 Wadsworth—High School.  
 Wakeman—High School.  
 Wapakoneta—High School.  
 Warren—High School.  
 Washington C. H.—High School.  
 Waterford—High School.  
 Waterville—High School.  
 Wauseon—High School.  
 Waverly—High School.  
 Waynesfield—High School.  
 Waynesville—High School.  
 Wellington—High School.  
 Wellston—High School.  
 Wellsville—High School.  
 Welshfield—Troy Township High School.  
 West Alexandria—High School.  
 West Carrollton—High School.  
 Westerville—Waterville Township High School.  
 West Jefferson—High School.  
 West Lafayette—High School.

West Liberty—High School.  
 West Mansfield—High School.  
 West Milton—High School.  
 West Park—High School.  
 West Richfield—Richfield Township High School.  
 West Salem—High School.  
 West Union—High School.  
 West Unity—High School.  
 Weston—High School.  
 Westville—Mad River Township High School.  
 Wharton—High School.  
 Wheelersburg—High School.  
 Wilkesville—High School.  
 Williamsburg—High School.  
 Williamsfield—  
   High School.  
   Wayne Township High School.  
 Williamsport—Deer Creek High School.  
 Willoughby—Wayne Township High School.  
 Wilmington—  
   High School.  
   Mount Pleasant Township High School.

Winchester—High School.  
 Windham—High School.  
 Woodsfield—High School.  
 Woodstock—High School.  
 Woodville—High School.  
 Wooster—  
   Academy.  
   High School.  
 Worthington—High School.  
 Wyoming—High School.  
 Xenia—  
   Beavercreek Township High School.  
   Caesarcreek Township High School.  
   Central High School.  
   East Main Street High School.  
   Ohio Sailors and Soldiers Home.  
   Yellow Springs—High School.  
 Youngstown—  
   Coitsville Township High School.  
   High School.  
 Zanesfield—Zanesfield-Jefferson High School.  
 Zanesville—High School.

## OKLAHOMA.

Schools approved by the State Board of Education and fully affiliated with the University of Oklahoma,  
 January 1, 1916.

	Units.
Admission requirements.....	15
Prescribed units:	
English.....	3
Mathematics.....	2
History.....	1
Science.....	1
Foreign language (one).....	2
Electives.....	6

Ada—High School.  
 Afton—High School.  
 Altus—High School.  
 Arapaho—High School.  
 Ardmore—High School.  
 Atoka—High School.  
 Bartlesville—High School.  
 Beggs—High School.  
 Blackwell—High School.  
 Boswell—High School.  
 Broken Arrow—High School.  
 Carney—High School.  
 Chandler—High School.  
 Checotah—High School.  
 Cherokee—High School.  
 Chickasha—  
   High School.  
   Oklahoma College for Women, Academy.  
 Claremore—University Preparatory School.  
 Cleveland—High School.  
 Clinton—High School.  
 Coalgate—High School.  
 Collinsville—High School.  
 Copan—High School.  
 Cordell—  
   Cordell Christian College, Academy.  
   High School.  
 Cushing—High School.  
 Custer—High School.  
 Davis—High School.  
 Dewey—High School.  
 Drumwright—High School.

Durant—High School.  
 Eldorado—High School.  
 Elk City—High School.  
 El Reno—High School.  
 Enid—  
   High School.  
   Phillips University High School.  
 Eufaula—High School.  
 Fairfax—High School.  
 Fairview—High School.  
 Francis—High School.  
 Geary—High School.  
 Grandfield—High School.  
 Granite—High School.  
 Grove—High School.  
 Guthrie—  
   High School.  
   Oklahoma Methodist University, Academy.  
 Guymon—High School.  
 Hennessey—High School.  
 Henryetta—High School.  
 Hinton—High School.  
 Hobart—High School.  
 Holdenville—High School.  
 Hollis—High School.  
 Hominy—High School.  
 Hugo—High School.  
 Keats—High School.  
 Kiefer—High School.  
 Kingfisher—  
   High School.  
   Kingfisher College, Academy.



Lawton—High School.  
 Lexington—High School.  
 Lindsay—High School.  
 Madill—High School.  
 Mangum—High School.  
 Marietta—High School.  
 Marlow—High School.  
 Maud—High School.  
 McAlester—High School.  
 Medford—High School.  
 Miami—High School.  
 Mountain View—High School.  
 Mukdrow—High School.  
 Muskogee—High School.  
 Newkirk—High School.  
 Noble—High School.  
 Norman—High School.  
 Nowata—High School.  
 Okemah—High School.  
 Oklahoma—High School.  
 Okmulgee—High School.  
 Oktaha—High School.  
 Pawnee—High School.  
 Pauls Valley—High School.  
 Perry—High School.  
 Ponca City—High School.  
 Pond Creek—High School.  
 Pryor—High School.  
 Purcell—High School.  
 Ramona—High School.  
 Roff—High School.  
 Ryan—High School.

Sallisaw—High School.  
 Sapulpa—High School.  
 Sayre—High School.  
 Seminole—High School.  
 Shawnee—High School.  
 Snyder—High School.  
 Stillwater—High School.  
 Stillwell—High School.  
 Stigler—High School.  
 Sulphur—High School.  
 Tecumseh—High School.  
 Temple—High School.  
 Texhoma—High School.  
 Thomas—High School.  
 Tishomingo—High School.  
 Tonkawa—University Preparatory School.  
 Tulsa—

*Henry Kendall College Academy.*  
 High School.

Vinita—High School.  
 Wagoner—High School.  
 Walter—High School.  
 Wapanucka—High School.  
 Waurika—High School.  
 Waynoka—High School.  
 Weleetka—High School.  
 Wewoka—High School.  
 Wilburton—High School.  
 Woodward—High School.  
 Wynnewood—High School.  
 Yukon—High School.

## OREGON.

Standardized by the State Board of Education and accredited by the University of Oregon for the year 1915-16.

	Units.
Admission requirements.....	15
Prescribed units:	
English.....	3
Mathematics.....	2
History.....	1
Science.....	1
One foreign language.....	2
Electives.....	6

Airle—High School.  
 Albany—High School.  
 Alpine—High School.  
 Alsea—High School.  
 Amity—High School.  
 Arlington—High School.  
 Ashland—High School.  
 Astoria—High School.  
 Athena—High School.  
 Baker—  
   *St. Francis Academy.*  
   High School.  
 Ballston—High School.  
 Bandon—High School.  
 Bay City—High School.  
 Beaverton—High School.  
 Bend—High School.  
 Bonanza—High School.  
 Brownsville—High School.  
 Burns—Harney County High School.  
 Canby—High School.  
 Canyon City—High School.  
 Canyonville—High School.

Carlton—High School.  
 Central Point—High School.  
 Clatskanie—High School.  
 Coburg—High School.  
 Colton—High School.  
 Condon—Gilliam County High School.  
 Coos River—High School.  
 Coquille—High School.  
 Corbett—High School.  
 Corvallis—High School.  
 Cottage Grove—High School.  
 Cove—High School.  
 Creswell—High School.  
 Crow—High School.  
 Culver—High School.  
 Dallas—High School.  
 Dayton—High School.  
 Dorena—High School.  
 Drain—High School.  
 Dufur—High School.  
 Dundee—High School.  
 Echo—High School.  
 Elgin—High School.

Elmira—High School.  
 Enterprise—Wallowa County High School.  
 Estacada—High School.  
 Eugene—High School.  
 Falls City—High School.  
 Florence—High School.  
 Forest Grove—High School.  
 Fossil—Wheeler County High School.  
 Freewater—High School.  
 Glendale—High School.  
 Gold Beach—High School.  
 Gold Hill—High School.  
 Grants Pass—High School.  
 Gresham—High School.  
 Haines—High School.  
 Halfway—High School.  
 Halsey—High School.  
 Harrisburg—High School.  
 Helix—High School.  
 Heppner—High School.  
 Hermiston—High School.  
 Hillsboro—High School.  
 Hood River—High School.  
 Huntington—High School.  
 Imbler—High School.  
 Independence—High School.  
 Irving—High School.  
 Jefferson—High School.  
 John Day—High School.  
 Joseph—High School.  
 Junction City—High School.  
 Klamath Falls—County High School.  
 La Grande—High School.  
 Lakeview—High School.  
 Leaburg—High School.  
 Lebanon—High School.  
 Lorane—High School.  
 Madras—High School.  
 Mapleton—High School.  
 Marshfield—High School.  
 McCoy—Bethel High School.  
 McMinnville—High School.  
 Medford—High School.  
 Merrill—High School.  
 Mill City—High School.  
 Milton—

*Columbia Junior College.*  
 High School.

Milwaukee—High School.  
 Molalla—High School.  
 Monmouth—High School.  
 Monroe—High School.  
 Monro—High School.  
 Mount Angel—

*Academy.*  
*College.*

Myrtle Creek—High School.  
 Myrtle Point—High School.  
 Nehalem—Union High School.  
 Newberg—High School.

*Pacific Academy.*

Newport—High School.  
 North Bend—High School.  
 Nyssa—High School.  
 Oakland—High School.

Ontario—High School.  
 Oregon City—High School.  
 Orenco—High School.  
 Pendleton—

*St. Joseph's Academy.*  
 High School.

Philomath—High School.  
 Phoenix—High School.  
 Pleasant Hill—Union High School No. 1.  
 Portland—

*Academy.*  
*Columbia University.*  
 Franklin High School.  
*Hill Military Academy.*  
 James John High School.  
 Jefferson High School.  
 Lincoln High School.  
*St. Helen's Hall.*  
*St. Joseph's School.*  
*St. Mary's Academy.*  
 Washington High School.  
*Y. M. C. A. Preparatory School.*

Prairie City—High School.  
 Prineville—Crook County High School.  
 Rainier—High School.  
 Redmond—High School.  
 Richland—High School.  
 Riddle—High School.  
 Rogue River—High School.  
 Roseburg—High School.  
 Saint Helens—High School.  
 Salem—High School.  
 Sandy—High School.  
 Scappoose—High School.  
 Scio—High School.  
 Scotts Mills—High School.  
 Searside—High School.  
 Shedd—High School.  
 Sheridan—High School.  
 Silver Lake—High School.  
 Silverton—High School.  
 South Brownsville—High School.  
 Springfield—High School.  
 Stanfield—High School.  
 Stayton—High School.  
 Sumpter—High School.  
 Sutherlin—High School.  
 Tangent—High School.  
 The Dalles—High School.  
 Thurston—High School.  
 Tillamook—High School.  
 Toledo—High School.  
 Tualatin—High School.  
 Turner—High School.  
 Union—High School.  
 Vale—High School.  
 Walker—High School.  
 Wallowa—High School.  
 Waltherville—Union High School.  
 Wasco—High School.  
 Weston—High School.  
 Willamina—High School.  
 Woodburn—High School.  
 Yamhill—High School.  
 Yoncalla—High School.

## PENNSYLVANIA.

First-grade secondary schools approved by the Department of Public Instruction of Pennsylvania, for the year ended July, 1915.

Requirements for approval: Four years of nine months each; at least three teachers; recitation period 40 minutes in length; double period in laboratory work; a minimum of twenty 40-minute recitations of prepared work; adequate equipment for teaching science studies; a reference library covering all the subjects offered.

English required in each year; at least one unit of science; two units of mathematics; one unit of history; two units of foreign language.

Abington—High School (Township).  
 Albion—High School.  
 Allentown—High School.  
 Altoona—High School.  
 Alverton—East Huntingdon High School (Township).  
 Ambridge—High School.  
 Annville—High School (Township).  
 Ardmore—Lower Merion Township High School.  
 Ashland—High School.  
 Ashley—High School.  
 Aspinwall—High School.  
 Athens—High School.  
 Avalon—High School.  
 Bangor—High School.  
 Beaver—High School.  
 Beaver Falls—High School.  
 Beccaria—High School (Township).  
 Bedford—High School.  
 Bellevue—High School.  
 Bellefonte—High School.  
 Ben Avon—High School.  
 Benton—High School.  
 Berwick—  
     High School.  
     West Berwick High School.  
 Berwyn—Easttown-Tredyffrin Township High School.  
 Bethlehem—  
     High School.  
     Moravian Parochial School.  
     Preparatory School.  
 Birdsboro—High School.  
 Blairsville—High School.  
 Bloomsburg—High School.  
 Blossburg—High School.  
 Boyertown—High School.  
 Braddock—High School.  
 Bradford—High School.  
 Bristol—High School.  
 Brockwayville—High School.  
 Brookville—High School.  
 Burgettstown—High School.  
 Butler—High School.  
 Cambridge Springs—High School.  
 Canonsburg—High School.  
 Canton—High School.  
 Carbondale—High School.  
 Carlisle—High School.  
 Catasauqua—High School.  
 Catawissa—High School.  
 Centerville—High School.  
 Chambersburg—High School.  
 Charleroi—High School.  
 Chester—High School.  
 Clairton—High School.  
 Clarion—High School.

Clearfield—High School.  
 Coatsville—High School.  
 Cochran—High School.  
 Collegeville—High School.  
 Columbia—High School.  
 Conemaugh—East Conemaugh High School.  
 Conneautville—High School.  
 Coraopolis—High School.  
 Connellsville—High School.  
 Corry—High School.  
 Coudersport—High School.  
 Crafton—High School.  
 Curwensville—High School.  
 Dallastown—High School.  
 Damascus—High School.  
 Danville—High School.  
 Darby—High School.  
 Derry—High School.  
 Donora—High School.  
 Downingtown—High School.  
 Doylestown—High School.  
 Dubois—High School.  
 Dunbar—High School.  
 Dunmore—High School.  
 Duryea—High School.  
 Easton—High School.  
 East Stroudsburg—High School.  
 Elkland—High School.  
 Elkins Park—Cheltenham High School.  
 Ellwood City—High School.  
 Emlenton—High School.  
 Emporium—High School.  
 Ephrata—High School.  
 Erie—High School.  
 Evansburg—High School.  
 Everett—High School.  
 Farrell—High School.  
 Ford City—High School.  
 Franklin—High School.  
 Freedom—High School.  
 Freeland—High School.  
 Freeport—High School.  
 Galeton—High School.  
 George School—*George School*.  
 Gettysburg—High School.  
 Girard—High School.  
 Glassport—High School.  
 Greensburg—High School.  
 Greenville—High School.  
 Grove City—High School.  
 Halifax—High School.  
 Hamburg—High School.  
 Hanover—High School.  
 Harrisburg—*Academy*.  
     High School.  
     Technical High School.  
 Hatboro—High School.

- Hawley—High School.  
 Hazleton—  
     Hazel Township High School.  
     Hanover Township High School.  
 Hollidaysburg—High School.  
 Homestead—High School.  
 Honesdale—High School.  
 Hummelstown—High School.  
 Huntingdon—High School.  
     *Juniata College (Preparatory Department).*  
 Irwin—High School.  
 Jamestown—High School.  
 Jeannette—High School.  
 Jenkintown—High School.  
 Jersey Shore—High School.  
 Johnsonburg—High School.  
 Johnstown—High School.  
 Juniata—High School.  
 Kane—High School.  
 Kennett Square—High School.  
 Kingsley—High School (Township).  
 Kingston—High School.  
     Dorrancton High School.  
     Forty Fort High School.  
     *Wyoming Seminary.*  
 Kittanning—High School.  
 Knoxville—High School.  
 Laceyville—High School  
 Lancaster—  
     Boys' High School.  
     *Franklin and Marshall Academy.*  
     Girls' High School.  
 Lansdale—High School.  
 Lansdowne—High School.  
 Lansford—High School.  
 Larksville—High School.  
 Latrobe—High School.  
 Lebanon—High School.  
 Leechburg—High School.  
 Lemont Furnace—North Union Township High School.  
 Lewisburg—  
     *Bucknell Academy.*  
     High School.  
 Lewistown—High School.  
 Little—High School  
 Llanerch—Haverford Township High School.  
 Lock Haven—High School.  
 Lykens—High School.  
 McDonald—High School.  
 McKeesport—High School.  
 Mahanoy City—High School.  
 Manheim—High School.  
 Mansfield—High School.  
 Marienville—Jenks Township High School.  
 Mars—High School.  
 Mauch Chunk—High School.  
 Meadville—High School.  
 Mechanicsburg—High School.  
 Media—High School.  
 Mercer—High School.  
 Meshoppen—High School.  
 Meyersdale—High School.  
 Middletown—High School.  
 Millford—High School.  
 Millersburg—High School.  
 Milton—High School.  
 Minersville—High School.  
 Monaca—High School.  
 Mount Carmel—High School.  
 Mount Jewett—High School.  
 Mount Oliver—Knoxville High School.  
 Mount Pleasant—High School.  
 Mount Union—High School.  
 Monessen—High School.  
 Monongahela—High School.  
 Montrose—High School.  
 Muncy—High School.  
 Munhall—High School.  
 Myerstown—High School.  
 Nanticoke—High School.  
 Narberth—High School.  
 Nazareth—High School.  
 Nesquehoning—Mauch Chunk Township High School.  
 New Bethlehem—High School.  
 New Brighton—High School.  
 New Castle—High School.  
 New Kensington—High School.  
 Newport—High School.  
 Norristown—High School.  
 Northampton—High School.  
 North East—High School.  
 North Girard—Girard Township High School.  
 Northumberland—High School.  
 Oakmont—High School.  
 Oil City—High School.  
 Oxford—High School.  
 Palmyra—High School.  
 Parkesburg—High School.  
 Parnassus—High School.  
 Parsons—High School.  
 Patton—High School.  
 Pen Argyl—High School.  
 Pottsville—Perkiomen Seminary.  
 Philadelphia—  
     Central High School.  
     *De Lancey School.*  
     *Episcopal Academy.*  
     *Friends' Central School.*  
     *Friends' Select School.*  
     Girls' High School.  
     Northeast Manual High School.  
     *Roman Catholic High School for Boys.*  
     *St. Joseph's College High School*  
     Southern Manual High School.  
     *Temple University Preparatory School.*  
     West Philadelphia (Boys') High School.  
     *William Penn Charter School.*  
     William Penn High School.  
 Phillipsburg—High School.  
 Phoenixville—High School.  
 Pittsburgh—  
     *Academy.*  
     Allegheny High School.  
     *Allegheny Preparatory School.*  
     *Duquesne University (Preparatory Department).*  
     *East Liberty Academy.*  
     Fifth Avenue High School.  
     Peabody High School.  
     Pittsburgh Central High School.  
     *Shady Side Academy.*  
     South High School.

Pittston—  
 High School.  
 West Pittston High School.  
 Pleasantville—High School.  
 Plymouth—High School.  
 Port Allegany—High School.  
 Pottstown—High School.  
 Pottsville—High School.  
 Punxsutawney—High School.  
 Reading—  
 Boys' High School.  
 Girls' High School.  
*Schuylkill Seminary.*  
 Red Lion—High School.  
 Reedsville—Brown Township High School.  
 Renovo—High School.  
 Reynoldsville—High School.  
 Ridgway—High School.  
 Ridley Park—High School.  
 Rochester—High School.  
 Royersford—High School.  
 St. Marys—High School.  
 Sayre—High School.  
 Scottsdale—  
 High School.  
 Mount Pleasant Township High School.  
 Scranton—  
 High School.  
*Mount St. Mary's Seminary.*  
*St. Thomas College.*  
 Technical High School.  
 Sewickley—High School.  
 Sharon—High School.  
 Sharpsburg—High School (Joint).  
 Sheffield—High School.  
 Shenandoah—High School.  
 Shamokin—High School.  
 Sharpsville—High School.  
 Shinglehouse—High School.  
 Shippensburg—High School.  
 Slatington—High School.  
 Smethport—High School.  
 South Bethlehem—High School.  
 South Brownsville—High School.  
 Somerset—High School.  
 Spring City—High School.  
 State College—High School.  
 Steelton—High School.  
 Stroudsburg—High School.  
 Sunbury—High School.  
 Susquehanna—High School.

Swarthmore—  
 High School.  
*Preparatory School.*  
 Swissvale—  
 Edgewood Park High School.  
 High School.  
 Tamaqua—High School.  
 Tarentum—High School.  
 Tidoute—High School.  
 Titusville—High School.  
 Towanda—High School.  
 Troy—High School.  
 Tunkhannock—High School.  
 Turtle Creek—High School.  
 Tyrone—High School.  
 Union City—High School.  
 Uniontown—High School.  
 Upper Darby—High School (Township).  
 Vandergrift—High School.  
 Wanamie—Newport Township High School.  
 Warren—High School.  
 Washington—  
 East Washington High School.  
 High School.  
 Waterford—High School (Joint).  
 Wayne—Radnor High School (Township).  
 Waynesboro—High School.  
 Waynesburg—High School.  
 Wellsboro—High School.  
 West Chester—High School.  
 Westfield—High School.  
 West Newton—High School.  
 West Philadelphia—High School.  
 Westtown—*Boarding School.*  
 Wiconisco—High School (Township).  
 Wilkes-Barre—  
 High School.  
*St. Mary's High School.*  
 Wilkesburg—High School.  
 Williamsport—  
 High School.  
 South Williamsport High School.  
*Williamsport Dickinson Seminary.*  
 Williamstown—High School.  
 Windber—High School.  
 Woodlawn—High School.  
 Yeagertown—Derry Township High School.  
 York—High School.  
 Youngsville—High School.  
 Zellenople—High School.

## RHODE ISLAND.

Approved by the Rhode Island State Board of Education, December, 1915.

In order to be approved, high schools must run at least 38 weeks in each year; must employ three or more teachers (one teacher for every 30 pupils enrolled), who shall be required to instruct not more than 5 hours in each school day; every teacher employed must hold certificate of qualifications granted by or under the authority of the State Board of Education; there must be maintained one or more courses of four years (following an elementary course of eight years) offering a minimum of 15 units of study; adequate library and laboratory facilities must be maintained.

Barrington Center—Barrington High School.  
 Bristol—High School.  
 Central Falls—High School.  
 East Providence—High School.

Newport—Rogers High School.  
 Pascoag—Burrillville High School.  
 Pawtucket—High School.  
 Peace Dale—South Kingstown High School.

**Providence—**

Classical High School.  
 Cranston High School.  
 English High School.  
 Hope Street High School.  
 Technical High School.

River Point—West Warwick High School.  
 Valley Falls—Cumberland High School.  
 Warren—High School.  
 Westerly—High School.  
 Wickford—North Kingstown High School.  
 Woonsocket—High School.

**SOUTH CAROLINA.**

Public high schools accredited by the University of South Carolina, January, 1916.

Admission to regular freshman standing at the university is on 12 high-school units, and the university maintains a list of "approved" schools giving acceptably that amount of work. The "accredited" schools listed below, however, are schools giving acceptably 14 units, and their graduates are admitted to advanced standing at the university.

Anderson—High School.  
 Bamberg—High School.  
 Batesburg—High School.  
 Bennettsville—High School.  
 Blacksburg—High School.  
 Charleston—  
   High School.  
   Memminger High School.  
 Clito—High School.  
 Darlington—High School.  
 Denmark—High School.  
 Dillon—High School.  
 Edgefield—High School.  
 Florence—High School.  
 Greenwood—High School.

Honea Path—High School.  
 Johnston—High School.  
 Latta—High School.  
 Marion—High School.  
 Mullins—High School.  
 Ninety Six—High School.  
 North Augusta—High School.  
 Rome—High School.  
 St. Matthews—High School.  
 Summerville—High School.  
 Sumter—High School.  
 Union—High School.  
 Winnsboro—High School.  
 Woodruff—High School.

**SOUTH DAKOTA.**

Accredited by the Department of Public Instruction and the University of South Dakota, for the year 1915-16.

	Units.
University admission requirements .....	15
Prescribed units:	
English .....	3
Mathematics .....	2
Electives .....	10

Aberdeen—  
   High School.  
   Northern Normal and Industrial School.  
 Academy—*Ward Academy*.  
 Alexandria—High School.  
 Armour—High School.  
 Belle Fourche—High School.  
 Beresford—High School.  
 Big Stone City—High School.  
 Bridgewater—High School.  
 Brookings—  
   High School.  
   South Dakota State College of Agriculture and  
   Mechanic Arts (Preparatory Department).  
 Bryant—High School.  
 Canton—  
   *Augustana College*.  
   High School.  
 Canterville—High School.  
 Chamberlain—  
   *Columbus College*.  
   High School.  
 Clark—High School.  
 Deadwood—High School.  
 Dell Rapids—High School.  
 Delmont—*Evangelical Lutheran Zion School*.  
 De Smet—High School.  
 Doland—High School.

Egan—High School.  
 Elk Point—High School.  
 Elkton—High School.  
 Eureka—*Lutheran College*.  
 Fort Pierre—High School.  
 Freeman—*College*.  
 Geddes—High School.  
 Groton—High School.  
 Hot Springs—High School.  
 Hurley—High School.  
 Huron—  
   *College*.  
   High School.  
 Ipswich—High School.  
 Kimball—High School.  
 Lake Preston—High School.  
 Langford—High School.  
 Lemmon—High School.  
 Lennox—High School.  
 Madison—  
   High School.  
   State Normal School.  
 Mellette—High School.  
 Milbank—High School.  
 Miller—High School.  
 Mitchell—  
   *Dakota Wesleyan University*.  
   High School.

Mobridge—High School.  
 Parker—High School.  
 Philip—High School.  
 Pierre—High School.  
 Plankinton—High School.  
 Platte—High School.  
 Rapid City—  
     High School.  
     State School of Mines.  
 Redfield—  
     College.  
     High School.  
 Salem—High School.  
 Sioux Falls—  
     All Saints School.  
     College.

Sioux Falls—Continued.  
     High School.  
     Lutheran Normal School.  
 Sisseton—High School.  
 Spencer—High School.  
 Spearfish—Normal School.  
 Springfield—State Normal School.  
 Sturgis—High School.  
 Vermillion—High School.  
 Wagner—High School.  
 Watertown—High School.  
 Wessington Springs—Seminary.  
 Woonsocket—High School.  
 Yankton—  
     College.  
     High School.

## TENNESSEE.

Schools "fully accredited" by the University of Tennessee, April, 1916.

	Units.
Admission requirements.....	14
Prescribed units:	
English.....	3
Mathematics.....	2½
Foreign language.....	4
Electives.....	4½
Ashland City—Cheatham County High School.	
Athens—McMinn County High School.	
Bell Buckle—Webb School.	
Benton—High School.	
Bolivar—High School.	
Bristol—High School.	
Brownsville—Haywood County High School.	
Brunswick—Bolton College.	
Byington—Karns High School	
Carthage—High School.	
Cedar Hill—High School.	
Chattanooga—	
Central High School.	
City High School.	
Girls' Preparatory School.	
The McCullie School.	
University School.	
Chucky—High School.	
Clarksville—Montgomery County High School.	
Clifton—Frank Hughes College.	
Clinton—Anderson County High School.	
Columbia—	
Institute.	
Maury County High School.	
Military Academy.	
Concord—Farragut High School.	
Cookeville—Putnam County High School.	
Cornersville—High School.	
Covington—Byars-Hall High School.	
Crossville—Cumberland County High School.	
Dayton—Rhea County High School.	
Decherd—High School.	
Dickson—High School.	
Ducktown—High School.	
Dyer—West Tennessee College.	
Dyersburg—High School.	
Etowah—McMinn County High School.	
Fayetteville—	
Lincoln County High School.	
Morgan School.	
Fountain City—Knox County High School.	
Franklin—	
High School.	
Peoples' School.	
Gallatin—Hawkins School.	
Gordonsville—High School.	
Greenfield—Training School.	
Harrogate—Lincoln Memorial Academy.	
Henderson—High School.	
Hixson—Hamilton County High School.	
Humboldt—High School.	
Huntingdon—Industrial and Training School.	
Jackson—City High School.	
Jasper—Marion County High School.	
Jellico—Campbell County High School.	
Johnson City—High School.	
Kimberlin Heights—Johnson Academy.	
Knoxville—City High School.	
Lawrenceburg—Lawrence County High School.	
Lebanon—Castle Heights School.	
Lenoir City—High School.	
Lewisburg—Price-Webb School.	
Lexington—High School.	
Livingston—Overton Academy.	
Lynnville—Robert B. Jones School.	
McKeanzie—Mc Tyers School.	
McMinnville—City High School.	
Madisonville—High School.	
Manchester—Coffee County High School.	
Martin—	
Hall-Moody School.	
McFerrin Training School.	
Memphis—	
Central High School.	
St. Mary's School.	
University School.	
Milan—High School.	
Monteagle—Fairmont School.	
Morristown—City High School.	
Mount Pleasant—High School.	
Murfreesboro—High School.	

Nashville—  
*Bible School.*  
*Bowen School.*  
*Duncan Preparatory School.*  
Hume-Fogg High School.  
*Montgomery-Bell Academy.*  
*University School.*  
*Ward-Belmont Seminary.*  
Obion—High School.  
Paris—E. W. Grove High School.  
Park City—High School.  
Pleasant Hill—*Academy.*  
Pulaski—  
High School.  
Martin College.  
*Massey School.*  
Ridgely—High School.  
Ripley—High School.  
Rutherford—High School.  
Sale Creek—High School.  
Savannah—*Institute.*  
Sewanee—*Military Academy.*

Shelbyville—*Brandon Training School.*  
Soddy—Hamilton County High School.  
Somerville—High School.  
South Knoxville—Young High School.  
Sparta—High School.  
Spencer—*Burritt College.*  
Springfield—  
High School.  
*Peoples and Tucker School.*  
Spring Hill—*Brankam and Hughes School.*  
Sulphur Springs—Jonesboro—High School.  
Sweetwater—*Tennessee Military Institute.*  
Tulahoma—*Fitzgerald and Clarke School.*  
Tyner—Hamilton County High School.  
Union, City—City High School.  
Tiptonville—Lake County High School.  
Troy—High School.  
Wartrace—High School.  
Washington College—*Washington College, Preparatory Department.*  
White Haven—High School.  
Winchester—High School.

## TEXAS.

Schools of "Group I" affiliated with the University of Texas, June 15, 1915.

	Units.
Admission requirements.....	14
Prescribed units:	
English.....	3
Mathematics.....	2½
History.....	2
Electives.....	
Abilene—High School.	
Alice—High School.	
Alvin—High School.	
Amarillo—High School.	
Austin—	
High School.	
<i>Kenilworth Hall.</i>	
<i>St. Mary's Academy.</i>	
<i>Whitis School.</i>	
Ballinger—High School.	
Bastrop—High School.	
Bay City—High School.	
Beaumont—High School.	
Beeville—High School.	
Bellville—High School.	
Belton—High School.	
Big Spring—High School.	
Bonham—High School.	
Bowie—High School.	
Brady—High School.	
Brenham—	
<i>Blinn Memorial College.</i>	
High School.	
Brownsville—High School.	
Brownwood—High School.	
Bryan—	
<i>Allen Academy.</i>	
High School.	
Caldwell—High School.	
Calvert—High School.	
Cameron—High School.	
Canyon—High School.	
Center—High School.	
Childress—High School.	
Cisco—	
<i>Britton's Training School.</i>	
High School.	
Clarksville—High School.	
Cleburne—High School.	
Coleman—High School.	
Comanche—High School.	
Corpus Christi—High School.	
Corisana—High School.	
Crockett—High School.	
Cuero—John C. French High School.	
Dallas—	
<i>The Hardin School for Boys.</i>	
High School.	
Oak Cliff High School.	
<i>The Terrill School.</i>	
Del Rio—High School.	
Denison—High School.	
Danton—High School.	
Dublin—High School.	
El Paso—High School.	
Ennis—High School.	
Farmersville—High School.	
Floresville—High School.	
Forney—High School.	
Fort Worth—	
High School.	
North Fort Worth High School.	
Gamesville—High School.	
Galveston—Ball High School.	
Garland—High School.	
Gatesville—High School.	
Georgetown—High School.	
Gonzales—High School.	



Graham—High School.  
 Grandview—High School.  
 Greenville—High School.  
 Hamilton—High School.  
 Haskell—High School.  
 Henderson—High School.  
 Henrietta—High School.  
 Hereford—High School.  
 Hico—High School.  
 Hillsboro—High School.  
 Honey Grove—High School.  
 Houston—

High School.

Houston Heights High School.

Hubbard—High School.  
 Huntsville—High School.  
 Itasca—High School.  
 Kaufman—High School.  
 Lagrange—High School.  
 Lampasas—High School.  
 Laredo—High School.  
 Llano—High School.  
 Lockhart—High School.  
 Longview—High School.  
 Lubbock—High School.  
 Lufkin—High School.  
 Mansfield—High School.  
 Marlin—High School.  
 Marshall—High School.  
 Mart—High School.  
 McGregor—High School.  
 McKinney—High School.  
 Meridian—*College*.  
 Mexia—High School.  
 Midland—High School.  
 Mineral Wells—High School.  
 Mineola—High School.  
 Nacogdoches—High School.  
 Navasota—High School.  
 Nocona—High School.  
 Orange—High School.  
 Ozona—High School.

Palestine—High School.  
 Paris—High School.  
 Pittsburg—High School.  
 Plainview—High School.  
 Port Arthur—High School.  
 Quanah—High School.  
 Richmond—High School.  
 Rockdale—High School.  
 San Angelo—High School.  
 San Antonio—

*Academy of Our Lady of the Lake.*

High School.

*Marshall Training School.*

*San Antonio Academy.*

*West Texas Military Academy.*

San Augustine—High School.

San Benito—High School.

San Marcos—

*Baptist Academy.*

*Coronal Institute.*

High School.

Seguin—High School.

Sherman—High School.

Smithville—High School.

Stamford—High School.

Stephenville—High School.

Sulphur Springs—High School.

Sweetwater—High School.

Taylor—High School.

Temple—High School.

Terrell—High School.

Texarkana—High School.

Timpeon—High School.

Tyler—High School.

Uvalde—High School.

Victoria—High School.

Waco—High School.

Waxahachie—High School.

Weatherford—High School.

Wichita Falls—High School.

Winnboro—High School.

Yoakum—High School.

Public high schools, in addition to those of "Group I" affiliated with the University of Texas, listed as "Class I" by the State Department of Education, April, 1916.

Schools of Class I must have not fewer than three teachers; a school term of at least eight scholastic months; a course of study in which 17½ units are required for graduation (a unit being defined as five recitations per week in a subject, each recitation being 35 to 40 minutes in length, and the subject being pursued for at least 36 weeks); laboratory apparatus sufficient to offer at least 2½ units in high-school sciences.

Alpine—High School.  
 Alto—High School.  
 Alvarado—High School.  
 Anson—High School.  
 Archer City—High School.  
 Arlington—High School.  
 Athens—High School.  
 Baird—High School.  
 Beaumont—South Park High School.  
 Bellevue—High School.  
 Bishop—High School.  
 Blanco—High School.  
 Blooming Grove—High School.  
 Bracketville—High School.  
 Breckenridge—High School.

Bridgeport—High School.  
 Buda—High School.  
 Buna—High School.  
 Burkburnett—High School.  
 Canadian—High School.  
 Carthage—High School.  
 Carrizo Springs—High School.  
 Celeste—High School.  
 Celina—High School.  
 Center—High School.  
 Childress—High School.  
 Chillicothe—High School.  
 Clarendon—High School.  
 Colorado—High School.  
 Columbus—High School.

Commerce—High School.  
 Conroe—High School.  
 Cooldidge—High School.  
 Cooper—High School.  
 Corsicana—

*I. O. F. Home School.*

State Orphans' Home School.

Cotulla—High School.  
 Dalhart—High School.  
 Dallas—West Dallas High School.  
 Decatur—High School.  
 De Leon—High School.  
 Devine—High School.  
 Donna—High School.  
 Eagle Lake—High School.  
 Eagle Pass—High School.  
 Eastland—High School.  
 Edgewood—High School.  
 Edna—High School.  
 El Campo—High School.  
 Electra—High School.  
 Falfurrias—High School.  
 Ferris—High School.  
 Flatonia—High School.  
 Floydada—High School.  
 Fort Worth—Diamond Hill High School.  
 Franklin—High School.  
 Fredericksburg—High School.  
 Frost—High School.  
 Garrison—High School.  
 Giddings—High School.  
 Gilmer—High School.  
 Goldthwaite—High School.  
 Goliad—High School.  
 Gorman—High School.  
 Granbury—High School.  
 Grand Prairie—High School.  
 Grand Saline—High School.  
 Grapevine—High School.  
 Groesbeck—High School.  
 Groveton—High School.  
 Hallettsville—High School.  
 Hamlin—High School.  
 Handley—High School.  
 Harlingen—High School.  
 Harrisburg—High School.  
 Hearne—High School.  
 Hempstead—High School.  
 Henrietta—High School.  
 Hillebrandt—High School.  
 Hondo—High School.  
 Iowa Park—High School.  
 Italy—High School.  
 Jacksboro—High School.  
 Jacksonville—High School.  
 Jasper—High School.  
 Jefferson—High School.  
 Jourdan—High School.  
 Karnes City—High School.  
 Kennedy—High School.  
 Kerens—High School.  
 Kerrville—High School.  
 Killeen—High School.  
 Kingsville—High School.  
 Kirbyville—High School.

Kyle—High School.  
 Ladonia—High School.  
 Lancaster—High School.  
 Leonard—High School.  
 Lewisville—High School.  
 Lindale—High School.  
 Livingston—High School.  
 Lockney—High School.  
 Lone Oak—High School.  
 Lorena—High School.  
 Luling—High School.  
 McAllen—High School.  
 Madisonville—High School.  
 Marble Falls—High School.  
 Marfa—High School.  
 Mason—High School.  
 Matador—High School.  
 Memphis—High School.  
 Mercedes—High School.  
 Merkel—High School.  
 Mertson—High School.  
 Miami—High School.  
 Midlothian—High School.  
 Milford—High School.  
 Mission—High School.  
 Mount Calm—High School.  
 Mount Pleasant—High School.  
 New Braunfels—High School.  
 Newton—High School.  
 Paducah—High School.  
 Palacios—High School.  
 Pearsall—High School.  
 Pecos—High School.  
 Petrolia—High School.  
 Pilot Point—High School.  
 Plano—High School.  
 Pleasanton—High School.  
 Polytechnic—Polytechnic Heights High School.  
 Port Lavaca—High School.  
 Post City—High School.  
 Reagan—High School.  
 Rising Star—High School.  
 Riverside—High School.  
 Rockport—High School.  
 Rockwall—High School.  
 Rosebud—High School.  
 Rosenberg—High School.  
 Rotan—High School.  
 Runge—High School.  
 Rusk—High School.  
 Sabinal—High School.  
 Sanderson—High School.  
 Sanger—High School.  
 San Saba—High School.  
 Santa Anna—High School.  
 Scranton—High School.  
 Seymour—High School.  
 Silverton—High School.  
 Sinton—High School.  
 Snyder—High School.  
 Somerville—High School.  
 Sonora—High School.  
 Sour Lake—High School.  
 Spur—High School.  
 Sterling City—High School.

Strawn—High School.  
 Tahoka—High School.  
 Teague—High School.  
 Texas City—High School.  
 Three Rivers—High School.  
 Throckmorton—High School.  
 Trinity—High School.  
 Troup—High School.  
 Tulsa—High School.  
 Valley Mills—High School.  
 Van Alstyne—High School.  
 Venus—High School.

Vernon—High School.  
 West—High School.  
 Wharton—High School.  
 Whitesboro—High School.  
 Whitney—High School.  
 Willis—High School.  
 Wills Point—High School.  
 Winters—High School.  
 Wolfe City—High School.  
 Wortham—High School.  
 Wylie—High School.  
 Yancy—High School.

### UTAH.

Public high schools approved by the State Board of Education and accredited by the University of Utah,  
 December, 1915.

University admission requirements.....	Units.
Prescribed units:	
English.....	3
Mathematics.....	2
History.....	1
Electives.....	9

American Fork—High School.  
 Brigham—Boxelder County High School.  
 Coalville—High School.  
 Eureka—High School.  
 Fillmore—Millard County High School.  
 Grantsville—High School.  
 Heber—Wasatch County High School.  
 Kayville—Davis County High School.  
 Lehi—High School.  
 Manti—High School.  
 Morgan—High School.  
 Moroni—High School.  
 Mount Pleasant—High School.  
 Nephi—High School.  
 Ogden—High School.  
 Panguitch—Garfield County High School.

Park City—High School.  
 Payson—High School.  
 Pleasant Grove—High School.  
 Price—Carbon County High School.  
 Richfield—High School.  
 Richmond—Cache County High School.  
 Roosevelt—Duchesne County High School.  
 Salt Lake City—  
     (East Side) High School.  
     Granite High School.  
     (West Side) High School.  
 Sandy—Jordan High School.  
 Spanish Fork—High School.  
 Springville—High School.  
 Tooele—High School.

### VERMONT.

Schools listed as "first class" by the State Board of Education of Vermont, October 1, 1915.

For a school of the first class at least two teachers are necessary and the time for recitation must be not less than 40 minutes for classes of 10 or more and not less than 30 minutes for classes of less than 10.

Bakersfield—*Brigham Academy.*

Barre—

*Goddard Seminary.*

High School.

Barton—High School.

Bellows Falls—High School.

Bennington—High School.

Bethel—High School.

Bradford—High School.

Brandon—High School.

Brattleboro—High School.

Bristol—High School.

Burlington—

*Bishop Hopkins Hall.*

High School.

*St. Mary's Academy.*

Canaan—High School.

Chelsea—High School.

Chester—High School.

Danville—High School.

Derby—*Academy.*

Enosburg Falls—High School.

Essex Junction—High School.

Fairfax—Bellows Free Academy.

Fair Haven—High School.

Franklin—High School.

Hardwick—High School.

Highgate Center—High School.

Hinesburg—High School.

Hyde Park—High School.

Island Pond—High School.

Jericho Center—High School.

Johnson—High School.

Ludlow—High School.

Lyndon Center—*Lyndon Institute.*

McIndoe Falls—*McIndoes Academy.*

Manchester—*Burr and Burton Seminary.*

Middlebury—High School.

Montpelier—

High School.

*Seminary.*

Morrisville—High School.

Newbury—High School.  
 New Haven—High School.  
 Newport—High School.  
 North Bennington—High School.  
 North Craftsbury—*Craftsbury Academy*.  
 Northfield—High School.  
 North Troy—High School.  
 Orleans—High School.  
 Peacham—*Caledonia County Grammar School*.  
 Pittsford—High School.  
 Poughkeepsie—*Troy Conference Academy*.  
 Proctor—High School.  
 Randolph—High School.  
 Richford—High School.  
 Richmond—High School.  
 Rochester—High School.  
 Rutland—High School.  
 St. Albans—High School.  
 St. Johnsbury—*Academy*.

Saxtons River—*Vermont Academy*.  
 South Royalton—High School.  
 Springfield—High School.  
 Stowe—High School.  
 Swanton—  
     High School.  
     *St. Ann's Academy*.  
 Thetford—*Academy*.  
 Townshend—*Leland and Gray Seminary*.  
 Vergennes—High School.  
 Waterbury—High School.  
 Wells River—High School.  
 West Rutland—High School.  
 White River Junction—High School.  
 Wilmington—High School.  
 Windsor—High School.  
 Winooski—High School.  
 Woodstock—High School.

## VIRGINIA.

Accredited (with exceptions noted) by the University of Virginia, the Virginia State Board of Education, and the Virginia Commission on Accredited Schools.

	Units.
University admission requirements.....	14
Prescribed units:	
English.....	3
Mathematics.....	2½
History.....	1
Latin (or Greek).....	4 (or 2)
Electives.....	3½ (or 5½)

NOTE.—Beginning July 1, 1916, the State Board of Education will require for graduation from the "First Grade" high schools not less than 16 units, distributed as follows: English, 4; mathematics, 3; history, 2; science, 2; electives, 5.

Abington—William King High School.  
 Accomac—High School.<sup>1</sup>  
 Alexandria—  
     City High School.  
     *Episcopal High School*.  
 Altavista—High School.<sup>1</sup>  
 Amherst—High School.<sup>2</sup>  
 Amelia—High School.  
 Appalachia—High School.  
 Appomattox—Agricultural High School.  
 Ashland—High School.  
 Ashwood—High School.<sup>2</sup>  
 Basic—*Brandon Institute*.<sup>2</sup>  
 Bedford City—  
     High School.  
     *Randolph-Macon Academy*.  
 Big Stone Gap—High School.  
 Blacksburg—High School.  
 Blackstone—  
     *Academy*.  
     High School.  
 Bowling Green—Lee Maury High School.  
 Bristol—High School.  
 Buchanan—High School.  
 Buena Vista—High School.  
 Burkeville—High School.  
 Cape Charles—High School.  
 Capeville—High School.<sup>1</sup>  
 Carson—High School.<sup>1</sup>  
 Cartersville—Hamilton High School.<sup>2</sup>  
 Champe—Sunny Side High School.<sup>1</sup>

Charlotte Courthouse—Charlotte High School.  
 Charlottesville—  
     High School.  
     *Jefferson School for Boys*.  
 Chase City—High School.  
 Chatham—  
     High School.<sup>1</sup>  
     *Training School for Boys*.  
 Cheriton—High School.<sup>1</sup>  
 Chester—Agricultural High School.  
 Chincoteague—High School.<sup>1</sup>  
 Christiansburg—High School.  
 Churchland—High School.  
 Clifton Forge—High School.  
 Clintwood—High School.<sup>1</sup>  
 Cluster Springs—*Academy*.  
 Coeburn—High School.  
 Courtland—High School.<sup>1</sup>  
 Covington—High School.  
 Crewe—High School.  
 Danville—  
     High School.  
     *The Danville School for Boys*.  
 Dayton—*Shenandoah Collegiate Institute*.  
 Disputanta—High School.<sup>1</sup>  
 Driver—Agricultural High School.  
 Dublin—*Institute*.<sup>2</sup>  
 East Stone Gap—High School.  
 Edinburg—High School.  
 Elk Creek—High School.  
 Emporia—High School.

<sup>1</sup> Provisionally accredited (for one year) by the Commission on Accredited Schools.

<sup>2</sup> Accredited by State board and Commission on Accredited Schools.

<sup>3</sup> Accredited by University only.

Fairfield—High School.<sup>1</sup>  
 Farmville—High School.  
 Fincoastle—High School.  
 Forest Depot—*New London Academy*.  
 Fort Defiance—*Augusta Military Academy*.  
 Fork Union—*Military Academy*.  
 Franklin—High School.  
 Frankton—Frankton-Nassawadox High School.  
 Fredericksburg—High School.  
 Front Royal—  
     High School.  
     *Randolph-Macon Academy*.  
 Galax—High School.  
 Gate City—Shoemaker High School.  
 Gloucester—Botetourt High School.  
 Graham—High School.  
 Grundy—High School.<sup>1</sup>  
 Hamilton—High School.<sup>2</sup>  
 Hampton—High School.  
 Harrisonburg—High School.  
 Hayes Store—High School.<sup>1</sup>  
 Herndon—High School.  
 Highland Springs—High School.  
 Houston—High School.<sup>1</sup>  
 Jarratt—High School.  
 Kinsale—High School.<sup>1</sup>  
 Lawrenceville—High School.  
 Lebanon—High School.  
 Leesburg—High School.<sup>1</sup>  
 Lexington—High School.  
 Lignum—High School.<sup>1</sup>  
 Lincoln—High School.  
 Louisa—High School.  
 Luray—High School.  
 Lynchburg—High School.  
 Manassas—  
     Agricultural High School.  
     *Eastern College Academy*.  
 Marion—High School.  
 Martinsville—High School.  
 Max Meadows—High School.  
 McGaheysville—High School.  
 Middletown—Agricultural High School.<sup>1</sup>  
 Miller School—*Miller School*.  
 Monterey—High School.  
 Morrisville—High School.<sup>1</sup>  
 New Castle—High School.<sup>1</sup>  
 Newport News—High School.  
 Norfolk—  
     *Lafayette High School*.  
     *Maury High School*.  
 Norton—High School.  
 Oceana—High School.  
 Onancock—High School.  
 Orange—High School.  
 Palmyra—Normal High School.  
 Parksley—High School.<sup>1</sup>

Pearlsburg—High School.<sup>1</sup>  
 Petersburg—High School.  
 Pocahontas—High School.  
 Portsmouth—  
     Deep Creek High School.  
     High School.  
     Western Branch High School.  
 Pulaski—High School.  
 Radford—High School.  
 Reedville—High School.  
 Richlands—High School.  
 Richmond—  
     *Academy*.  
     *Benedictine College*.<sup>3</sup>  
     *The Chamberlayne School*.  
     John Marshall High School.  
     *McGuire's University School*.  
 Roanoke—High School.  
 Round Hill—High School.<sup>1</sup>  
 Rural Retreat—High School.  
 Salem—High School.  
 Saltville—High School.  
 Scottsville—High School.  
 Smithfield—High School.<sup>1</sup>  
 South Boston—High School.  
 South Hill—High School.  
 South Norfolk—High School.  
 Staunton—  
     High School.  
     *Military Academy*.  
 Stony Creek—High School.  
 Strasburg—High School.  
 Suffolk—Jefferson High School.  
 Tazewell—High School.  
 Toano—High School.  
 Turbeville—Agricultural High School.  
 Wakefield—High School.  
 Warrenton—  
     High School.  
     *Stuyvesant School*.  
 Waverly—High School.  
 Waynesboro—  
     *Fishburne Military Academy*.  
     High School.  
 West Point—High School.<sup>1</sup>  
 Whaleyville—High School.  
 White Stone—High School.<sup>4</sup>  
 Wilcooco Church—High School.  
 Winchester—  
     High School.  
     *Shenandoah Valley Academy*.  
 Woodberry Forest—School.  
 Woodlawn—High School.  
 Woodstock—  
     High School.  
     *Massanutten Academy*.  
 Wytheville—High School.

<sup>1</sup> Provisionally accredited (for one year) by the Commission on Accredited Schools.

<sup>2</sup> Accredited provisionally (for one year) by State Board of Education and Commission on Accredited Schools, but not by the University.

<sup>3</sup> Accredited by university only.

Accredited by university and State Board of Education, but not by Commission on Accredited Schools.

The following girls' private secondary schools are accredited by the State Board of Education and the Commission on Accredited Schools:

Blackstone—*Female Institute.*  
Buena Vista—*Southern Seminary.*  
Charlottesville—*St. Anne's School.*  
Chatham—*Episcopal Institute.*  
Danville—

*Randolph-Macon Institute.*  
*Roanoke Institute.*

Roanoke—*Virginia College for Women (Preparatory Department).*  
Staunton—*Stuart Hall.*  
Williamsburg—*Female Institute.*

The following colored private secondary schools are accredited by the State Board of Education:

Burkeville—*Ingleside Seminary.*  
Chase City—*Thyne Institute.*  
Lawrenceville—*St. Paul Normal and Industrial Institute.*

Lynchburg—*Virginia Theological Seminary and College.*  
Richmond—*Hartshorn Memorial College.*  
*Virginia Union University.*

## WASHINGTON.

Accredited by the State board of education and the University of Washington, October, 1915.

	Units.
University admission requirements.....	15
Prescribed units:	
English.....	3
Mathematics.....	2½
Foreign language.....	2
Science.....	1
A history (or United States history ½ and civics ½).....	1
Foreign language 2 additional units, or Solid geometry ½ and 1 unit of science.	
Electives.....	3½ or 4

Aberdeen—High School.  
Acme—High School.  
Almira—High School.  
Anacortes—High School.  
Arlington—High School.  
Asotin—High School.  
Auburn—High School.  
Bellingham (North)—High School.  
Bellingham (South)—High School.  
Bickleton—High School.  
Black Diamond—High School.  
Blaine—High School.  
Bothwell—High School.  
Bremerton-Charleston—High School.  
Buckley—High School.  
Burlington—Union High School.  
Burton—Union High School.  
Camas—High School.  
Cashmere—High School.  
Castle Rock—High School.  
Centralia—High School.  
Chehalis—High School.  
Chelan—High School.  
Cheney—High School.  
Chewelah—High School.  
Clarkston—High School.  
Cle Elum—High School.  
Colfax—High School.  
Colville—High School.  
Concomully—High School.  
Coulee City—High School.  
Coupeville—High School.  
Creston—High School.  
Davenport—High School.  
Dayton—High School.

Deer Park—High School.  
Eatonville—High School.  
Edmonds—High School.  
Edwall—High School.  
Ellensburg—High School.  
Elma—High School.  
Endicott—High School.  
Enumclaw—High School.  
Ephrata—High School.  
Everett—High School.  
Fairfield—High School.  
Farmington—High School.  
Ferndale—High School.  
Friday Harbor—High School.  
Garfield—High School.  
Goldendale—High School.  
Grandview—High School.  
Granger—High School.  
Granite Falls—High School.  
Harrington—High School.  
Hillyard—High School.  
Hoquiam—High School.  
Kalama—High School.  
Kelso—High School.  
Kennewick—High School.  
Kent—High School.  
Kettle Falls—High School.  
Kirkland—High School.  
Kittitas—High School.  
La Conner—High School.  
Latah—High School.  
Laurel—High School.  
Leavenworth—High School.  
Lebam—High School.  
Lind—High School.

Lynden—High School.  
 Mabton—High School.  
 Malden—High School.  
 Marysville—High School.  
 Medical Lake—High School.  
 Monroe—High School.  
 Montesano—High School.  
 Mossy Rock—High School.  
 Mount Vernon—High School.  
 Newport—High School.  
 Nooksack—High School.  
 North Bend—High School.  
 North Yakima—High School.  
 Oakesdale—High School.  
 Odessa—High School.  
 Okanogan—High School.  
 Olympia—High School.  
 Omak—High School.  
 Oroville—High School.  
 Orting—High School.  
 Outlook—High School.  
 Palouse—High School.  
 Pasco—High School.  
 Pe Ell—High School.  
 Pomeroy—High School.  
 Port Angeles—High School.  
 Port Townsend—High School.  
 Prescott—High School.  
 Prosser—High School.  
 Pullman—High School.  
 Puyallup—High School.  
 Raymond—High School.  
 Reardan—High School.  
 Renton—High School.  
 Republic—High School.  
 Richland—High School.  
 Ridgeville—High School.  
 Ritzville—High School.  
 Rockford—High School.  
 Rosalia—High School.  
 Roslyn—High School.  
 Roy—High School.  
 Seattle—  
     Ballard High School.  
     Broadway High School.  
     Franklin High School.  
     Holy Names Academy.

Seattle—Continued.  
     Lincoln High School.  
     Queen Anne High School.  
     West Seattle High School.  
 Sedro Woolley—High School.  
 Selah—High School.  
 Shelton—High School.  
 Snohomish—High School.  
 South Bend—High School.  
 Spangle—High School.  
 Spokane—  
     Holy Names Academy.  
     Lewis and Clark High School.  
     North Central High School.  
 Sprague—High School.  
 Stanwood—High School.  
 Stevenson—High School.  
 Sumas—High School.  
 Sumner—High School.  
 Sunnyside—High School.  
 Tacoma—  
     Annie Wright Seminary.  
     Lincoln Park High School.  
     Stadium High School.  
     University of Puget Sound (Preparatory Department).  
 Tekoa—High School.  
 Tenino—High School.  
 Tolt—High School.  
 Toppenish—High School.  
 Twisp—High School.  
 Vancouver—High School.  
 Vashon—High School.  
 Wabburg—High School.  
 Walla Walla—  
     High School.  
     St. Paul's School for Girls.  
 Wapato—High School.  
 Washougal—High School.  
 Waterville—High School.  
 Wenatchee—High School.  
 White Salmon—High School.  
 Wilbur—High School.  
 Wilson Creek—High School.  
 Winlock—High School.  
 Winslow—High School.  
 Woodland—High School.

### WEST VIRGINIA.

“First-class” secondary schools approved by the Department of Free Schools of West Virginia and accredited by West Virginia University, for the year 1915-16.<sup>1</sup>

	Units.
University admission requirements.....	15
Prescribed units:	
English.....	3
Mathematics.....	2
Foreign language (one).....	2
Science.....	1
History.....	1
Electives.....	6
Athens—Concord State Normal School.	
Barboursville—Morris-Harvey College, Preparatory Department.	
Beckley—Institute, High School Department.	
Belington—High School.	
Benwood—Benwood-McMechen High School.	
Bethany—College, Preparatory School.	
Bluefield—Beaver Pond District High School.	
Bramwell—Rock District High School.	
Bridgeport—High School.	
Buckhannon— High School.	
Wesleyan College, Preparatory School.	
Calro—Grant District High School.	

<sup>1</sup> The Department of Free Schools approves only the public high schools.

Cameron—Cameron District High School.  
 Ceredo—Ceredo-Kanova High School.  
 Charleston—  
   High School.  
   Garnett High School (colored).  
 Charles Town—Charles Town District High School.  
 Chester—High School.  
 Clarksburg—Washington Irving High School.  
 Clay—Clay County High School.  
 Clendenin—Big Sandy District High School.  
 Cowen—Glade District High School.  
 Davis—Davis District High School.  
 East Bank—Cabin Creek District High School.  
 Elkins—  
   *Davis-Elkins College, Preparatory School.*  
   High School.  
 Fairmont—  
   High School.  
   State Normal School.  
 Fairview—Paw Paw District High School.  
 Farmington—Lincoln District High School.  
 Flemington—Flemington District High School.  
 Glenville—State Normal School.  
 Grafton—High School.  
 Harpers Ferry—Harpers Ferry District High School.  
 Hillsboro—Little Levels District High School.  
 Hinton—Greenbrier District High School.  
 Huntington—  
   Douglass High School (colored).  
   High School.  
   Marshall College, State Normal School.  
 Jane Lew—High School.  
 Keyser—  
   High School.  
   State Preparatory School.  
 Kingwood—Kingwood District High School.  
 Lewisburg—*Seminary.*  
 Littleton—Clay District High School.  
 Logan—Logan District High School.  
 Mannington—Mannington District High School.  
 Martinsburg—High School.  
 Middlebourne—Tyler County High School.  
 Montgomery—State Preparatory School.  
 Morgantown—High School.  
 Moundsville—High School.

Mount Hope—Fayetteville District High School.  
 New Martinsville—Magnolia District High School.  
 Nork Fork—North Fork-Elkhorn District High School.  
 Oak Hill—Fayetteville District High School No. 2.  
 Parkersburg—  
   High School.  
   Sumner High School (colored).  
 Parsons—Black Fork District High School.  
 Paw Paw—Cecapon District High School.  
 Pennsboro—Clay District High School.  
 Philippi—*Broadus Institute, Preparatory School.*  
 Piedmont—Piedmont District High School.  
 Point Pleasant—High School.  
 Princeton—East River District High School.  
 Ravenswood—High School.  
 Richwood—High School.  
 Ronceverte—Fort Spring District High School.  
 St. Albans—High School.  
 St. Marys—Washington District High School.  
 Salem—  
   *College Preparatory School.*  
   High School.  
 Shepherdstown—Shepherd College State Normal School.  
 Sherrard—Union District High School.  
 Shinnston—Clay District High School.  
 Sistersville—High School.  
 Spencer—High School.  
 Summersville—Nicholas County High School.  
 Sutton—High School.  
 Terra Alta—Portland District High School.  
 Thomas—Fairfax District High School.  
 Webster Springs—Fork Lick District High School.  
 Welch—Browns Creek District High School.  
 Wellsburg—Wellsburg District High School.  
 West Liberty—State Normal School.  
 West Milford—Union District High School.  
 Weston—High School.  
 Wheeling—  
   (Eggedwood) Triadelphia District High School.  
   High School.  
   *Lindely Institute.*  
 Williamson—High School.  
 Williamstown—Williams District High School.

## WISCONSIN.

Accredited by the University of Wisconsin, August 1, 1915.

	Units.
Admission requirements.....	14
Prescribed units:	
English.....	2
Mathematics.....	2
Foreign language.....	2
Electives.....	8

Abbotsford—High School.  
 Albany—High School.  
 Algoma—High School.  
 Alma—High School.  
 Almond—High School.  
 Altoona—*St. Mary's Boarding and High School.*  
 Amery—High School.  
 Amherst—High School.  
 Antigo—High School.  
 Appleton—High School.  
 Aroaia—High School.

Arena—High School.  
 Argyle—High School.  
 Ashland—  
   High School.  
   *Northland Academy.*  
 Athens—High School.  
 Augusta—High School.  
 Baldwin—High School.  
 Bangor—High School.  
 Baraboo—High School.  
 Barron—High School.



Bayfield—High School.  
 Beaver Dam—  
     High School.  
     *Wayland Academy.*  
 Belleville—High School.  
 Belmont—High School.  
 Beloit—High School.  
 Berlin—High School.  
 Black Earth—High School.  
 Black River Falls—High School.  
 Blair—High School.  
 Blanchardville—High School.  
 Bloomer—High School.  
 Bloomington—High School.  
 Blue River—High School.  
 Boscobel—High School.  
 Brandon—High School.  
 Brillion—High School.  
 Brodhead—High School.  
 Brooklyn—High School.  
 Burlington—High School.  
 Cadott—High School.  
 Cambria—High School.  
 Cambridge—High School.  
 Camp Douglas—High School.  
 Cashton—High School.  
 Cassville—High School.  
 Cedarburg—High School.  
 Cedar Grove—*Wisconsin Memorial Academy.*  
 Chetek—High School.  
 Chilton—High School.  
 Chippewa Falls—  
     High School.  
     *McDonell Memorial High School.*  
 Clinton—High School.  
 Clintonville—High School.  
 Cobb—High School.  
 Colby—High School.  
 Columbus—High School.  
 Crandon—High School.  
 Cuba—High School.  
 Cumberland—High School.  
 Darlen—High School.  
 Darlington—High School.  
 Dearfield—High School.  
 De Forest—High School.  
 Delafield—*St. John's Military Academy.*  
 Delavan—High School.  
 De Pere—High School.  
 Dodgeville—High School.  
 Durand—High School.  
 Eagle River—High School.  
 East Troy—High School.  
 Eau Claire—High School.  
 Edgar—High School.  
 Edgerton—High School.  
 Elkhorn—High School.  
 Ellsworth—High School.  
 Elroy—High School.  
 Endeavor—*Endeavor Academy.*  
 Evansville—  
     *Evansville Seminary.*  
     High School.  
 Fairchild—High School.  
 Fennimore—High School.  
 Fifield—High School.  
 Florence—High School.

Fond du Lac—  
     *Grafton Hall.*  
     High School.  
     *St. Mary's Springs Academy.*  
 Fort Atkinson—High School.  
 Fountain City—High School.  
 Fox Lake—High School.  
 Frederic—High School.  
 Galesville—High School.  
 Genoa Junction—High School.  
 Gillett—High School.  
 Glenbeulah—High School.  
 Glenwood City—High School.  
 Goodman—High School.  
 Grafton—High School.  
 Grand Rapids—High School.  
 Grantsburg—High School.  
 Green Bay (East)—High School.  
 Green Bay (West)—  
     High School.  
     *St. Joseph's Academy.*  
 Green Lake—High School.  
 Greenwood—High School.  
 Hammond—High School.  
 Hancock—High School.  
 Hartford—High School.  
 Hayward—High School.  
 Hazel Green—High School.  
 Highland—High School.  
 Hillsboro—High School.  
 Hixton—High School.  
 Horicon—High School.  
 Hudson—  
     *Galalah, a School for Boys.*  
     High School.  
 Humbird—High School.  
 Hurley—High School.  
 Independence—High School.  
 Iola—High School.  
 Iron River—High School.  
 Janesville—High School.  
 Jefferson—High School.  
 Juneau—High School.  
 Kaukauna—High School.  
 Kendall—High School.  
 Kenosha—High School.  
 Kewaunee—High School.  
 Keweenaw—High School.  
 Kiel—High School.  
 Kilbourn—High School.  
 La Crosse—High School.  
 Ladysmith—High School.  
 La Farge—High School.  
 Lake Geneva—High School.  
 Lake Mills—High School.  
 Lancaster—High School.  
 Linden—High School.  
 Little Chute—High School.  
 Livingston—High School.  
 Iodi—High School.  
 Lone Rock—High School.  
 Loyal—High School.  
 Madison—  
     High School.  
     *Sacred Heart Academy.*  
     *The Wisconsin High School.*  
 Manawa—High School.

Manitowoc—High School.  
 Marinette—High School.  
 Marion—High School.  
 Markesan—High School.  
 Marshall—High School.  
 Marshfield—High School.  
 Mattoon—High School.  
 Mauston—High School.  
 Mayville—High School.  
 Mazomanie—High School.  
 Medford—High School.  
 Mellen—High School.  
 Menasha—High School.  
 Menomonee Falls—High School.  
 Menomonie—High School.  
 Merrill—High School.  
 Merrilan—High School.  
 Middleton—High School.  
 Milton—  
     High School.  
     Milton College Academy.  
 Milton Junction—High School.  
 Milwaukee—  
     East Division High School.  
     German-English Academy.  
     Holy Angels Academy.  
     Milwaukee-Downer Seminary.  
     North Division High School.  
     Our Lady of Mercy High School.  
     South Division High School.  
     St. John's Cathedral School.  
     Washington High School.  
     West Division High School.  
 Mineral Point—High School.  
 Minocqua—High School.  
 Mondovi—High School.  
 Monroe—High School.  
 Montello—High School.  
 Montfort—High School.  
 Monticello—High School.  
 Mount Horeb—High School.  
 Mukwonago—High School.  
 Muscoda—High School.  
 Necedah—High School.  
 Neenah—High School.  
 Neillsville—High School.  
 New Holstein—High School.  
 New Lisbon—High School.  
 New London—High School.  
 New Richmond—High School.  
 North Candon—High School.  
 North Fond du Lac—High School.  
 Oakfield—High School.  
 Oconomowoc—High School.  
 Oconto—High School.  
 Oconto Falls—High School.  
 Omro—High School.  
 Onalaska—High School.  
 Oregon—High School.  
 Osceola—High School.  
 Oshkosh—High School.  
 Palmyra—High School.  
 Pardeeville—High School.  
 Park Falls—High School.  
 Pepin—High School.  
 Peshtigo—High School.  
 Pewaukee—High School.

Phillips—High School.  
 Plainfield—High School.  
 Plattville—High School.  
 Plymouth—High School.  
 Portage—High School.  
 Port Washington—High School.  
 Poynette—High School.  
 Prairie du Chien—  
     High School.  
     Keewatin Academy.  
     St. Mary's Academy.  
 Prairie du Sac—High School.  
 Prentice—High School.  
 Prescott—High School.  
 Princeton—High School.  
 Racine—  
     College Grammar School.  
     High School.  
     St. Catherine's Academy.  
 Randolph—High School.  
 Redgranite—High School.  
 Reedsburg—High School.  
 Reeseville—High School.  
 Rhinelander—High School.  
 Rib Lake—High School.  
 Rice Lake—High School.  
 Richland Center—High School.  
 Rio—High School.  
 Ripon—High School.  
 River Falls—High School.  
 Roberts—High School.  
 Rosendale—High School.  
 St. Croix Falls—High School.  
 St. Francis—Pio Nono College (High School Course).  
 Sauk City—High School.  
 Seneca—High School.  
 Seymour—High School.  
 Sharon—High School.  
 Shawano—High School.  
 Sheboygan—High School.  
 Sheboygan Falls—High School.  
 Shell Lake—High School.  
 Shiocton—High School.  
 Shullsburg—High School.  
 Sinsinawa—St. Clara Academy.  
 Soldiers Grove—High School.  
 South Milwaukee—High School.  
 Sparta—High School.  
 Spooner—High School.  
 Spring Green—High School.  
 Spring Valley—High School.  
 Stanley—High School.  
 Stevens Point—High School.  
 Stoughton—High School.  
 Stratford—High School.  
 Sturgeon Bay—High School.  
 Sun Prairie—High School.  
 Superior—  
     High School.  
     Nelson Dewey High School.  
 Thorp—High School.  
 Tigerton—High School.  
 Tomah—High School.  
 Tomahawk—High School.  
 Trempealeau—High School.  
 Two Rivers—High School.  
 Union Grove—High School.

Unity—High School.  
 Verona—High School.  
 Viola—High School.  
 Viroqua—High School.  
 Wabeno—High School.  
 Waldo—High School.  
 Walworth—High School.  
 Washburn—High School.  
 Waterford—High School.  
 Waterloo—High School.  
 Watertown—High School.  
 Waukesha—High School.  
 Waunakee—High School.  
 Waupaca—High School.  
 Waupun—High School.  
 Wausan—High School.  
 Wausaukee—High School.  
 Wautoma—High School.

Wauwatosa—  
     High School.  
     Milwaukee County Agricultural School.  
 West Allis—High School.  
 West Bend—High School.  
 Westboro—High School.  
 Westby—High School.  
 West De Pere—High School.  
 Westfield—High School.  
 West Salem—High School.  
 Weyauwega—High School.  
 Whitehall—High School.  
 Whitewater—High School.  
 Wild Rose—High School.  
 Willmot—High School.  
 Wilton—High School.  
 Winneconne—High School.  
 Wittenberg—High School.  
 Wonowoc—High School.

### WYOMING.

Accredited by the University of Wyoming, November, 1915.

	Units.
Admission requirements.....	15
Prescribed units:	
English.....	3
Mathematics.....	2
Foreign language.....	2
History.....	2
Science.....	1
Electives.....	5
Afton—High School.	
Basin—High School.	
Buffalo—High School.	
Casper—High School.	
Cheyenne—	
<i>Convent of the Holy Child Jesus.</i>	
High School.	
Cody—High School.	
Cowley— <i>Big Horn State Academy.</i>	
Douglas—High School.	
Evanston—High School.	
Gillette—High School.	
Green River—High School.	
Kemmerer—High School.	
Lander—High School.	
Laramie—	
High School.	
University High School.	
Luak—High School.	
Newcastle—High School.	
Powell—High School.	
Rawlins—High School.	
Riverton—High School.	
Rock Springs—High School.	
Sheridan—High School.	
Sundance—High School.	
Thermopolis—High School.	
Torrington—High School.	
Wheatland—High School.	
Worland—High School.	

## PART II.—LISTS OF ACCREDITING ASSOCIATIONS.

### The Commission on Accredited Schools of the Association of Colleges and Secondary Schools of the Southern States.

The minimum standard for accrediting shall be:

(a) No school shall be accredited which does not require for graduation the completion of a four-year high-school course of study embracing 14 units as defined by this association. A unit represents a year's study in any subject in a secondary school, constituting approximately a quarter of a full year's work. More than 20 periods per week should be discouraged.

(b) The minimum scholastic attainment of three-fourths of all secondary school teachers of academic subjects in any accredited school on the southern list shall be equivalent to graduation from a college belonging to the Association of Colleges and Secondary Schools of the Southern States, or a college approved by the commission. It is strongly advised that this attainment include, or be supplemented by, special study of the content and pedagogy of the subject taught.

(c) The number of daily periods of class instruction given by any teacher should not exceed five periods per day; and the commission will scrutinize with extreme care any school in which instructors teach as many as six daily periods.

(d) The laboratory and library facilities shall be adequate for the needs of instruction in the courses taught.

(e) The location and construction of the buildings, the lighting, heating, and ventilation of the rooms, the nature of the lavatories, corridors, water supply, school furniture, apparatus, and methods of cleaning shall be such as to insure hygienic conditions for both pupils and teachers.

(f) The efficiency of instruction, the acquired habits of thought and speech, the general intellectual and moral tone of a school are paramount factors, and therefore, only schools which rank well in these particulars, as evidenced by rigid, thoroughgoing, sympathetic inspection, shall be considered eligible for the list.

(g) The commission will decline to consider any school whose teaching force consists of fewer than three teachers of academic subjects giving their full time to high-school instruction. When local conditions warrant the introduction of the so-called vocational subjects, such as agriculture, manual training, household arts, and commercial subjects, the commission will hold that a sufficient number of teachers and proper equipment must be added to provide adequately for such instruction.

(i) All schools whose records show an excessive number of pupils per teacher, as based on the average number belonging, even though they may technically meet all other requirements, will be rejected. The association recognizes 30 as maximum.

Schools accredited for the year 1915-16.

### ALABAMA.

Andalusia—High School.  
Athens—*Greene University School*.  
Birmingham—  
    *Birmingham College Training School*.  
    Central High School.  
    Enaley High School.  
    *Howard Academy*.  
Centreville—Blbb County High School.  
Decatur—High School.  
Eufaula—High School.  
Gadsden—Disque High School.  
Huntsville—High School.

Jasper—Walker County High School.  
Mobile—  
    High School.  
    *University Military School*.  
Montgomery—  
    *Barnes School*.  
    Sidney Lanier High School.  
New Decatur—High School.  
Selma—High School.  
Talladega—High School.  
Tuscaloosa—High School.  
Union Springs—High School.

### ARKANSAS.

Argenta—High School.  
Camden—High School.  
Crossett—High School.  
Dermott—High School.  
England—High School.  
Eureka Springs—*Crescent College Academy*.

Forrest City—High School.  
Hot Springs—High School.  
Little Rock—High School.  
Stuttgart—High School.  
Texarkana—High School.

## FLORIDA.

Arcadia—De Soto County High School.  
 Bartow—Summerlin Institute.  
 Bradentown—Manatee County High School.  
 Brooksville—Hernando County High School.  
 Clearwater—High School.  
 Daytona—High School.  
 De Funiak Springs—*Palmer College Academy*.  
 Eustis—High School.  
 Fort Lauderdale—High School.  
 Fort Myers—Gwynne High School.  
 Gainesville—High School.  
 Jacksonville—*Florida Military Academy*.  
 Kissimmee—Ocoola County High School.  
 Lakeland—High School.  
 Largo—High School.

Leesburg—High School.  
 Live Oak—Suwannee County High School.  
 Miami—High School.  
 Ocala—High School.  
 Pensacola—High School.  
 Plant City—High School.  
 Punta Gorda—High School.  
 Quincy—Gadsden County High School.  
 St. Petersburg—High School.  
 Sanford—High School.  
 Tallahassee—Leon High School.  
 Tampa—Hillsborough County High School.  
 Tarpon Springs—High School.  
 Wauchula—High School.  
 West Palm Beach—High School.

## GEORGIA.

Albany—High School.  
 Athens—High School.  
 Atlanta—  
   Boys' High School.  
   Girls' High School.  
   *Marist College*.  
   *Peacock's School*.  
 Augusta—  
   Richmond Academy.  
   Tubman High School.  
 Barnesville—*Gordon Institute*.  
 Brunswick—*Glynn Academy*.  
 Cartersville—High School.  
 Cedartown—High School.  
 Columbus—High School.  
 College Park—*Georgia Military Academy*.  
 Dublin—High School.  
 Elberton—High School.  
 Fitzgerald—High School.  
 Fort Valley—High School.

Gainesville—*Riverside Military Academy*.  
 Greensboro—High School.  
 Griffin—High School.  
 Locust Grove—*Institute*.  
 Madison—High School.  
 Marietta—High School.  
 Milledgeville—*Georgia Military Academy*.  
 Newnan—High School.  
 Quitman—High School.  
 Rome—  
   *Darlington Academy*.  
   High School.  
 Savannah—  
   *Benedictine College*.  
   *Chatham Academy*.  
 Thomaston—*R. F. Lee Institute*.  
 Thomasville—High School.  
 Valdosta—High School.  
 Waycross—High School.

## KENTUCKY.

Ashland—High School.  
 Catlettsburg—High School.  
 Covington—High School.  
 Cynthiana—High School.  
 Dayton—High School.  
 Elkton—*Vanderbilt Training School*.  
 Frankfort—High School.  
 Franklin—High School.  
 Georgetown—High School.  
 Henderson—High School.  
 Lexington—High School.  
 Louisville—  
   Boys' High School.  
   Girls' High School.

Ludlow—High School.  
 Lyndon—*Kentucky Military Institute*.  
 Maysville—High School.  
 Morganfield—High School.  
 Mount Sterling—High School.  
 Newport—  
   Bellevue High School.  
   High School.  
 Owensboro—High School.  
 Paducah—High School.  
 Paris—High School.  
 Richmond—*Kentucky State Normal*.  
 Stanford—High School.  
 Sturgis—High School.

## LOUISIANA.

Alexandria—Bolton High School.  
 Baton Rouge—State University Demonstration School.  
 Homer—High School.  
 Houma—Terrebonne High School.

Monroe—Ouachita Parish High School.  
 New Orleans—*Isidore Newman Manual Training School*.  
 Shreveport—High School.

## MISSISSIPPI.

Clarksdale—High School.  
 Greenville—High School.  
 Greenwood—High School.  
 Gulfport—High School.  
 Jackson—Central High School.

Laurel—High School.  
 McComb—High School.  
 Meridian—High School.  
 Natchez—High School.  
 Port Gibson—*Chamberlain-Hunt Academy.*

## NORTH CAROLINA.

Asheville—  
*Asheville School.*  
*Bingham School.*  
 High School.  
*St. Genevieve's Academy.*  
 Charlotte—  
 High School.  
*Horner Military School.*  
 Durham—  
 High School.  
*Trinity Park School.*

Elizabeth City—High School.  
 Flat Rock—*Fleet School.*  
 Goldsboro—High School.  
 Hendersonville—*Fassifern School.*  
 Oak Ridge—*Institute.*  
 Raleigh—High School.  
 Warrenton—High School.  
 Wilmington—High School.  
 Winston-Salem—  
 High School.  
*Salem Academy.*

## SOUTH CAROLINA.

Anderson—High School.  
 Bamberg—  
*Carlisle Fitting School.*  
 High School.  
 Bennettsville—High School.  
 Charleston—  
*Ashley Hall School.*  
 High School (Boys).  
*Porter Military Academy.*  
 Darlington—High School.  
 Dillon—High School.  
 Florence—High School.

Greenville—*Furman Fitting School.*  
 Greenwood—High School.  
 Lancaster—High School.  
 Latta—High School.  
 Marion—High School.  
 North Augusta—High School.  
 Orangeburg—High School.  
 St. Matthews—High School.  
 Spartanburg—*Wofford Fitting School.*  
 Summerville—High School.  
 Sumter—High School.

## TENNESSEE.

Benton—Polk County High School.  
 Chattanooga—  
*Baylor School.*  
*Girls Preparatory School*  
 High School.  
*McCallie School.*  
 Columbia—*Military Academy.*  
 Concord—Farragut High School.  
 Covington—Byars-Hall High School.  
 Dyersburg—High School (County).  
 Fountain City—Knox County Central High School.  
 Knoxville—High School.  
 Park City—High School.

Maryville—*Maryville College (Preparatory Department).*  
 Memphis—  
 High School.  
*University School.*  
 Nashville—  
 Hume-Fogg High School.  
 Paris—Grove High School.  
 Pulaski—  
*Martin College (Preparatory Department.)*  
*Massey School.*  
 Sewanee—*Sewanee Military Academy.*  
 Tullahoma—*Fitzgerald and Clarke School.*

## TEXAS.

Ablene—High School.  
 Amarillo—High School.  
 Austin—  
 High School.  
*Whitis School.*  
 Ballinger—High School.  
 Beaumont—High School.  
 Belton—High School.  
 Bonham—High School.  
 Brady—High School.  
 Cameron—High School.  
 Center—High School.  
 Clarksville—High School.

Cleburne—High School.  
 Corsicana—High School.  
 Dallas—  
 Main High School.  
 Oak Cliff High School.  
 El Paso—High School.  
 Ennis—High School.  
 Farmersville—High School.  
 Forney—High School.  
 Fort Worth—High School.  
 Gainesville—High School.  
 Galveston—Ball High School.  
 Greenville—High School.

Henderson—High School.  
 Hillsboro—High School.  
 Houston—High School.  
 Houston Heights—High School.  
 Longview—High School.  
 Lufkin—High School.  
 Marlin—High School.  
 Marshall—High School.  
 McGregor—High School.  
 Mineola—High School.  
 Nacogdoches—High School.  
 Palestine—High School.  
 Pittsburg—High School.  
 Port Arthur—High School.

Quanah—High School.  
 San Angelo—High School.  
 San Antonio—Academy.  
 San Benito—High School.  
 San Marcos—*Baptist Academy*.  
 Seguin—High School.  
 Stamford—High School.  
 Sweetwater—High School.  
 Temple—High School.  
 Victoria—High School.  
 Waco—High School.  
 Waxahachie—High School.  
 Wichita Falls—High School.

### VIRGINIA.

Alexandria—  
*Episcopal High School*.  
 High School.  
 Bedford—*Randolph-Macon Academy*.  
 Bristol—High School.  
 Charlottesville—High School.  
 Cluster Springs—Academy.  
 Danville—*The Danville School*.  
 Front Royal—*Randolph-Macon Academy*.  
 Harrisonburg—High School.  
 Lexington—High School.  
 Lynchburg—High School.  
 Manassas—High School.  
 Norfolk—Maury High School.

Petersburg—High School.  
 Portsmouth—High School.  
 Richmond—  
*Academy*.  
 John Marshall High School.  
*McGuire's University School*.  
 Roanoke—High School.  
 South Boston—High School.  
 Staunton—High School.  
 Suffolk—Jefferson High School.  
 Winchester—*Shenandoah Valley Academy*.  
 Woodberry Forest—School.  
 Woodstock—*Massanutten Academy*.  
 Wyttheville—High School.

### WEST VIRGINIA.

Beckley—*Institute*.  
 Benwood—Union High School.  
 Buckhannon—*West Virginia Wesleyan Academy*.  
 Cairo—Grant District High School.  
 Ceredo—Ceredo-Kenova High School.  
 Charleston—High School.  
 Clarksburg—High School.  
 Clay—High School (county).  
 East Bank—Cabin Creek District High School.  
 Fairview—Paw Paw District High School.  
 Farmington—High School.  
 Hillsboro—High School.  
 Hinton—High School.  
 Keyser—State Preparatory School.  
 Logan—District High School.  
 Mannington—High School.  
 Martinsburg—High School.

Moundsville—High School.  
 Mount Hope—High School.  
 New Martinsville—Magnolia High School.  
 Oak Hill—High School.  
 Parkersburg—High School.  
 Princeton—East River District High School.  
 St. Marys—High School.  
 Shinnston—Clay District High School.  
 Spencer—High School.  
 Summersville—Nicholas County High School.  
 Thomas—High School.  
 Welch—Brown's Creek District High School.  
 Weston—High School.  
 Wheeling—(Edgewood) Triadelphia District High School.  
 Williamson—High School.  
 Williamstown—High School.

### New England College Entrance Certificate Board.

Members of the board: Amherst College, Bates College, Boston University, Bowdoin College, Brown University, Colby College, Massachusetts Agricultural College, Middlebury College, Mount Holyoke College, Smith College, Tufts College, University of Vermont, Wellesley College, Wesleyan University, Williams College.

A school to be approved by the board must—

- (1) Give satisfactory evidence as to curriculum, staff of teachers, and equipment;
- (2) Be able to prepare for college according to some one of the recognized plans for entering a college represented on the board;

- \* \* \* \* \*
- (4) Have sent on examination within a period of three years preceding the time of application at least two students to one or more of the colleges represented on the board.

A school when first approved is placed on a trial list. If the record made by its candidates in the colleges represented on the board is satisfactory, it is then placed on the approved list.

Schools approved by the board, May 20, 1915.

## CONNECTICUT.

- Ansonia—High School.  
 Bridgeport—  
     *Courtland School.*  
     High School.  
 Bristol—High School.<sup>1</sup>  
 Central Village—Plainfield High School.  
 Cheshire—School.  
 Clinton—*Morgan School.*  
 Collinsville—High School.  
 Danbury—High School.  
 Danielson—Killingly High School.  
 Derby—High School.  
 East Hartford—High School.  
 Greenwich—  
     *Academy.*  
     High School.  
     *Rosemary Hall School.*  
 Hartford—Public High School.  
 Lakeville—*Taconic School for Girls.*  
 Meriden—High School.  
 Middlebury—*Westover School.*  
 Middletown—  
     High School.  
     *The Misses Patten's School.*  
 New Britain—Public High School.  
 New Haven—High School.  
 New London—  
     *Bulkeley School.*  
     *Williams Memorial Institute.*  
 New Milford—High School.  
 Newtown—High School.  
 North Stonington—*Wheeler School.*<sup>1</sup>  
 Norwalk—*Hillside School.*  
 Norwich—*Free Academy.*
- Portland—High School.  
 Putnam—High School.  
 Redding—*Sanford School.*<sup>1</sup>  
 Ridgefield—*School.*<sup>1</sup>  
 Seymour—High School.<sup>1</sup>  
 Shelton—High School.  
 Southington—*Lewis High School.*  
 South Manchester—High School.  
 South Norwalk—Norwalk High School.  
 Stamford—  
     High School.  
     *The Catherine Aiken School.*  
     *The Stamford Preparatory School.*  
 Stonington—High School.  
 Stratford—High School.<sup>1</sup>  
 Suffield—*Connecticut Literary Institution.*  
 Thompsonville—Enfield Public High School.  
 Vernon—Rockville High School.  
 Wallingford—  
     Central District High School.  
     *The Choate School.*  
 Washington—  
     *The Gunnery School.*  
     *Wykeham Rise.*  
 Waterbury—  
     Crosby High School.  
     *St. Margaret's School.*  
 Watertown—*The Taft School.*  
 West Hartford—High School.  
 West Haven—High School.<sup>1</sup>  
 Willimantic—Windham High School.  
 Windsor—High School.  
 Winsted—*Gilbert School.*

## MAINE.

- Auburn—Edward Little High School.  
 Augusta—Cony High School.  
 Bangor—High School.  
 Bar Harbor—High School.  
 Bath—Morse High School.  
 Belfast—High School.  
 Berwick—Sullivan High School.<sup>1</sup>  
 Bethel—*Gould's Academy.*  
 Biddeford—High School.  
 Bluehill—*Bluehill George Stevens Academy.*  
 Bowdoinham—High School.<sup>1</sup>  
 Brewer—High School.  
 Bridgton—High School.  
 Brunswick—High School.  
 Buckfield—High School.<sup>1</sup>  
 Bucksport—*East Maine Conference Seminary.*  
 Calais—*Academy.*  
 Camden—High School.  
 Caribou—High School.<sup>1</sup>  
 Charleston—*Higgins Classical Institute.*  
 Cherryfield—*Academy.*<sup>1</sup>  
 Cumberland Center—*Greeley Institute.*  
 Dexter—High School.  
 East Livermore—Livermore Falls High School.  
 East Machias—*Washington Academy.*  
 Eastport—Boynton High School.
- Ellsworth—High School.  
 Fairfield—Lawrence High School.<sup>1</sup>  
 Farmington—  
     *The Abbot School.*  
     High School.  
 Fort Fairfield—High School.  
 Foxcroft—*Academy.*  
 Freedom—*Academy.*  
 Freeport—High School.  
 Fryeburg—*Academy.*  
 Gardiner—High School.<sup>1</sup>  
 Gorham—High School.  
 Gullford—High School.  
 Hallowell—High School.  
 Hampden—*Academy.*  
 Hebron—*Academy.*  
 Hinkley—*Good Will High School.*<sup>1</sup>  
 Houlton—  
     High School.  
     *Ricker Classical Institute.*  
 Kennebunkport—High School.<sup>1</sup>  
 Kents Hill—*Maine Wesleyan Seminary.*  
 Lewiston—High School.  
 Lisbon Falls—High School.  
 Machias—High School.<sup>1</sup>  
 Madison—High School.

<sup>1</sup> On the trial list for 1915.



Milo—High School.<sup>1</sup>  
 Newcastle—*Lincoln Academy*.  
 North Bridgton—*Bridgton Academy*.  
 Norway—High School.  
 Old Town—High School.  
 Oxford—High School.  
 Phillips—High School.<sup>1</sup>  
 Pittsfield—*Maine Central Institute*.  
 Portland—  
   Deering High School.  
   High School.  
   *Waynflete School*.  
   *Westbrook Seminary*.  
 Presque Isle—High School.  
 Richmond—High School.  
 Rockland—High School.  
 Rockport—High School.<sup>1</sup>  
 Rumford—*Stephens High School*.  
 Saco—*Thornton Academy*.

Sanford—High School.<sup>1</sup>  
 Skowhegan—*Skowhegan High School and Bloomfield Academy*.  
 South Berwick—*Berwick Academy*.<sup>1</sup>  
 South Paris—*Paris High School*.  
 South Portland—High School.  
 Thomaston—High School.<sup>1</sup>  
 Topsham—High School.<sup>1</sup>  
 Vassalboro—*Oak Grove Seminary*.  
 Warren—High School.<sup>1</sup>  
 Waterville—  
   *Coburn Classical Institute*.  
   High School.  
 Wells—High School.  
 Westbrook—High School.  
 Wilton—*Academy*.  
 Winthrop—High School.<sup>1</sup>  
 York—High School.

## MASSACHUSETTS.

Abington—High School.  
 Adams—High School.  
 Amherst—High School.  
 Andover—  
   *Abbot Academy*.  
   *Phillips Academy*.  
   Punchard High School.  
 Arlington—High School.  
 Ashburnham—*Cushing Academy*.  
 Ashland—High School.  
 Athol—High School.  
 Attleboro—High School.  
 Auburndale—*Lasell Seminary*.  
 Ayer—High School.  
 Barre—Henry Woods High School.  
 Belmont—High School.  
 Boston—  
   *Berkeley Preparatory School*.  
   Brighton High School.  
   *The Brimmer School*.  
   *The Curtis-Peabody School*.<sup>1</sup>  
   Dorchester High School.  
   East Boston High School.  
   English High School.  
   Girls' High School.  
   Girls' Latin School.  
   *Miss Guild's and Miss Evans's School*.  
   *Huntington School*.  
   Mechanics Arts High School.  
   Public Latin School.  
   Roxbury High School.  
   South Boston High School.  
   *The von Mach School for Girls*.<sup>1</sup>  
   West Roxbury High School.  
   *The Winsor School*.<sup>1</sup>  
 Bradford—*Academy*.  
 Bridgewater—High School.  
 Brimfield—*Hitchcock Free Academy*.<sup>1</sup>  
 Brockton—High School.  
 Brookline—High School.  
 Cambridge—High and Latin School.  
 Chelsea—High School.  
 Chicopee—High School.  
 Clinton—High School.

Concord—High School.  
 Dalton—High School.  
 Danvers—Holton High School.  
 Dedham—High School.  
 Deerfield—*Academy and Dickinson High School*.  
 Duxbury—*Powder Point School*.<sup>1</sup>  
 Easthampton—  
   High School.  
   *Williston Seminary*.  
 East Northfield—*Northfield Seminary*.  
 East Weymouth—Weymouth High School.  
 Everett—High School.  
 Fairhaven—High School.  
 Fall River—B. M. C. Durkee High School.  
 Falmouth—Lawrence High School.  
 Fitchburg—High School.  
 Foxboro—High School.  
 Framingham—High School.  
 Franklin—*Dean Academy*.  
 Gardner—High School.  
 Georgetown—*Perley Free School*.<sup>1</sup>  
 Gloucester—High School.  
 Grafton—High School.  
 Great Barrington—Searles High School.<sup>1</sup>  
 Greenfield—High School.  
 Groveland—High School.  
 Hadley—Hopkins Academy.  
 Hatfield—*Smith Academy*.  
 Haverhill—High School.  
 Hingham—High School.  
 Holliston—High School.  
 Holyoke—High School.  
 Hudson—High School.  
 Hyannis—Barnstable High School.<sup>1</sup>  
 Hyde Park—High School.  
 Lawrence—High School.  
 Lee—High School.  
 Leicester—*Academy*.  
 Lenox—High School.<sup>1</sup>  
 Leominster—High School.  
 Lexington—High School.  
 Littleton—High School.<sup>1</sup>  
 Lowell—  
   High School.  
   *Rogers Hall School*.

<sup>1</sup> On the trial list for 1915.

## Lynn—

Classical High School.  
 English High School.  
 Malden—High School.  
 Manchester—Story High School.  
 Mansfield—High School.  
 Marblehead—High School.  
 Marion—*Tabor Academy*.  
 Marlborough—High School.  
 Marshfield—High School.<sup>1</sup>  
 Maynard—High School.  
 Medford—High School.  
 Melrose—High School.  
 Methuen—High School.  
 Middleboro—High School.  
 Millford—High School.  
 Milton—High School.  
 Monson—*Academy*.  
 Mount Hermon—*Boys' School*.  
 Natick—  
   High School.  
   *Walnut Hill School for Girls*.  
 Needham—High School.  
 New Bedford—High School.  
 Newburyport—High and Putnam Schools.  
 Newton—*Mount Ida School for Girls*.  
 Newtonville—  
   Newton High School.  
   Technical High School.  
 North Adams—Drury High School.  
 Northampton—  
   *Miss Capen's School for Girls*.  
   High School.  
   *The Mary A. Burnham School for Girls*.  
   St. Michael's High School.  
 North Andover—Johnson High School.  
 North Attleboro—High School.<sup>1</sup>  
 North Brookfield—High School.  
 Norton—High School.  
 Norwood—High School.  
 Orange—High School.  
 Palmer—High School.  
 Peabody—High School.  
 Pepperell—High School.  
 Pittsfield—  
   *Miss Hall's School*.  
   High School.  
 Plymouth—High School.  
 Provincetown—High School.  
 Quincy—  
   High School.  
   *Woodward Institute*.  
 Revere—High School.  
 Rockland—High School.  
 Salem—Classical and High School.  
 Sandwich—High School.

Saugus—High School.  
 Scituate—High School.  
 Sharon—High School.  
 Sheffield—*Berkshire School*.<sup>1</sup>  
 Shelburne—Arms Academy.  
 Somerville—High School.  
 South Braintree—*Thayer Academy*.  
 Southbridge—High School.  
 South Byfield—*Dummer Academy*.  
 Springfield—  
   *American International College*.  
   Central High School.  
   *The Elms*.  
   *The MacDuffee School for Girls*.  
   Technical High School.  
 Stoneham—High School.  
 Stoughton—Kimball High School.  
 Stow—Hale High School.<sup>1</sup>  
 Sudbury—High School.<sup>1</sup>  
 Swampscott—High School.  
 Taunton—High School.  
 Turners Falls—High School.  
 Upton—High School.  
 Uxbridge—High School.  
 Wakefield—High School.  
 Waltham—High School.  
 Ware—High School.  
 Wareham—High School.  
 Warren—High School.  
 Webster—High School.  
 Wellesley—  
   *Dana Hall School*.  
   High School.  
 Westboro—High School.<sup>1</sup>  
 West Bridgewater—Howard High School.  
 Westfield—High School.  
 Westford—Academy.<sup>1</sup>  
 Weston—High School.<sup>1</sup>  
 West Springfield—High School.  
 Whitinsville—Northbridge High School.  
 Whitman—Public High School.  
 Wilbraham—*Academy*.  
 Williamsburg—High School.<sup>1</sup>  
 Williamstown—High School.  
 Winchendon—Murdock School.  
 Winchester—High School.  
 Winthrop—High School.  
 Woburn—High School.  
 Wollaston—*Quincy Mansion School*.  
 Worcester—  
   *Academy*.  
   Classical High School.  
   English High School.  
   South High School.  
 Wrentham—High School.

## NEW HAMPSHIRE.

Andover—*Proctor Academy*.  
 Berlin—High School.  
 Claremont—Stevens High School.  
 Concord—  
   High School.  
   *St. Mary's School*.  
   *St. Paul's School*.

Derry—*Pinkerton Academy*.  
 Exeter—  
   *Phillips Exeter Academy*.  
   *Robinson Seminary*.  
 Franklin—High School.  
 Hanover—High School.  
 Hillsboro—High School.<sup>1</sup>

<sup>1</sup>On the trial list for 1915.

Holls—High School.<sup>1</sup>  
 Keene—High School.  
 Kingston—*Saborn Seminary*.  
 Laconia—High School.  
 Lancaster—High School.  
 Lebanon—High School.  
 Lisbon—High School.  
 Littleton—High School.  
 Manchester—High School.  
 Meriden—*Kimball Union Academy*.  
 Milford—High School.  
 Milton—Nute High School.  
 Nashua—High School.

New Hampton—*Literary Institution*.  
 New London—*Colby Academy*.  
 Newport—Richards High School.  
 Pittsfield—High School.  
 Plymouth—High School.  
 Portsmouth—High School.  
 Rochester—High School.  
 Somersworth—High School.  
 Stratford—High School.  
 Tilton—*Seminary*.  
 Warner—Simons Free High School.  
 Whitefield—High School.<sup>1</sup>  
 Wolfeboro—*Brewster Free Academy*.

## RHODE ISLAND.

Barrington—High School.  
 Bristol—Colt Memorial High School.  
 Central Falls—High School.  
 East Greenwich—*Academy*.  
 East Providence—High School.  
 Newport—Rogers High School.  
 Pawtucket—High School.  
 Providence—  
   Classical High School.  
   Cranston High School.  
   English High School.

Providence—Continued.  
   Hope Street High School.  
   *Miss Wheeler's School*.  
   Morris Heights School.<sup>1</sup>  
   *Moses Brown School*.  
   Technical High School.  
 Wakefield—South Kingstown High School.  
 Warwick—High School.  
 Westerly—High School.  
 Wickford—North Kingstown High School.  
 Woonsocket—High School.

## VERMONT.

Barre—  
   *Goddard Seminary*.  
   Spanlding High School.  
 Barton—Academy.  
 Bellows Falls—High School.  
 Bennington—High School.  
 Bethel—Whitcomb High School.  
 Bradford—Academy.  
 Brandon—High School.  
 Brattleboro—High School.  
 Bristol—High School.<sup>1</sup>  
 Burlington—  
   High School.  
   *Mount St. Mary's Academy*.<sup>1</sup>  
 Chester—High School.  
 Enosburg Falls—High School.<sup>1</sup>  
 Essex—Essex Junction High School.  
 Fairfax—*Bellows Free Academy*.  
 Fair Haven—High School.  
 Hardwick—Academy.  
 Hyde Park—High School.<sup>1</sup>  
 Jericho—High School.  
 Johnson—High School.  
 Ludlow—Black River Academy.  
 Lyndon Center—*Lyndon Institute*.  
 Manchester—*Burr and Burton Seminary*.

Middlebury—High School.  
 Montpelier—  
   High School.  
   *Seminary*.  
 Morrisville—People's Academy.  
 Newport—High School.  
 North Craftsbury—*Craftsbury Academy*.  
 Orleans—High School.<sup>1</sup>  
 Pittsford—High School.<sup>1</sup>  
 Poultney—*Troy Conference Academy*.  
 Proctor—High School.  
 Randolph—High School.  
 Richford—High School.  
 Rutland—High School.  
 St. Albans—High School.  
 St. Johnsbury—*Academy*.  
 Saxtons River—*Vermont Academy*.  
 South Royalton—High School.  
 Springfield—High School.  
 Stowe—High School.  
 Townshend—*Leland and Gray Seminary*.  
 Vergennes—High School.  
 Waterbury—High School.  
 White River Junction—Hartford High School.  
 Winooski—High School.<sup>1</sup>  
 Woodstock—High School.

<sup>1</sup> On the trial list for 1915.

## North Central Association of Colleges and Secondary Schools.

The following constitute the standards for accrediting secondary schools for the present year (1915).

1. No school shall be accredited which does not require 15 units for graduation. More than 20 periods per week should be discouraged.
2. The minimum attainment of teachers of academic subjects shall be equivalent to graduation from a college belonging to the North Central Association of Colleges and Secondary Schools requiring the completion of a four-year course of study, or 120 semester hours in advance of a standard four-year high-school

course and including at least 11 semester hours in education. This shall include special study of the subject matter and pedagogy of the subject to be taught. Such requirements shall not be construed as retroactive. (For the succeeding year the board will interpret courses in education as the same courses are interpreted by the colleges or universities offering them, not more than six hours' credit being given for successful teaching experience.)

3. The number of daily periods of classroom instruction given by any teacher should not exceed 5, each to extend over at least 40 minutes in the clear. The board of inspectors will reject all schools having more than 6 recitation periods per day for any teacher.

4. The laboratory and library facilities shall be adequate to the needs of instruction in the subjects taught.

5. The location and construction of the buildings, the lighting, heating, and ventilation of the rooms, the nature of the lavatories, corridors, closets, water supply, school furniture, apparatus, and methods of cleaning shall be such as to insure hygienic conditions for both pupils and teachers.

6. The efficiency of instruction, the acquired habits of thought and study, the general intellectual and moral tone of a school are paramount factors, and therefore only schools which rank well in these particulars, as evidenced by rigid, thoroughgoing, sympathetic inspection, shall be considered eligible for the list.

7. The association will decline to consider any school whose teaching force consists of fewer than four teachers of academic subjects, exclusive of the superintendent. The association recommends the introduction of the so-called vocational subjects, such as agriculture, manual training, household arts, and commercial subjects, into schools where local conditions render such introduction feasible, but the inspectors will hold that a sufficient number of qualified teachers must be added to provide adequately for such instruction.

9. No school whose records show an excessive number of pupils per teacher, based on average attendance, shall be accredited. The association recommends 25 as a maximum.

Schools accredited March 20, 1915.

### COLORADO.

Aspen—High School.

Boulder—Colorado State Preparatory School.

Canon City—

High School.

South Canon City High School.

Colorado City—High School.

Colorado Springs—High School.

Cripple Creek—High School.

Delta—High School.

Denver—

East Side High School.

Manual Training High School.

North Side High School.

South Side High School.

West Side High School.

Durango—High School.

Eaton—High School.

Fort Collins—High School.

Fort Morgan—High School.

Fruita—High School.

Glenwood Springs—Garfield County High School.

Golden—High School.

Grand Junction—High School.

Greeley—High School.

Gunnison—County High School.

Lamar—High School.

Las Animas—Bent County High School.

La Junta—High School.

Leadville—High School.

Longmont—High School.

Loveland—High School.

Monte Vista—High School.

Montrose—County High School.

Pueblo—

High School (District 1).

High School (District 20).

Rocky Ford—High School.

Salida—High School.

Telluride—High School.

Trinidad—High School.

Victor—High School.

### ILLINOIS.

Aledo—*Drury Academy*.

Alton—

High School.

*Western Military Academy*.

Aurora—

East High School.

*Jennings Seminary*.

West High School.

Batavia—High School.

Beardstown—High School.

Belleville—High School.

Belvidere—High School.

Bloomington—High School.

Blue Island—High School (Township).

Bridgeport—High School (Township).

Calro—High School.

Canton—High School.

Carbondale—

High School.

Southern Illinois State Normal University.

Carlinville—High School.

Carthage—*College Academy*.

Centralia—High School (Township).

Champaign—High School.

Charleston—High School.

Chicago—

Austin High School.

Bowen High School.

## Chicago—Continued.

Calumet High School.  
 Carl Schurz High School.  
 Crane Technical High School.  
 Curtis High School.  
 Englewood High School.  
*F. W. Parker School.*  
 Harrison Technical High School.  
*Harvard School.*  
 Hyde Park High School.  
*Kenwood Institute.*  
 Lake High School.  
 Lake View High School.  
 Lane Technical High School.  
*Latin School.*  
*Loyola Academy.*  
 Lucy Flower Technical High School.  
 Marshall High School.  
 McKinley High School.  
 Medill High School.  
*Morgan Park Academy.*  
 Morgan Park High School.  
 Phillips High School.  
 Senn High School.  
 Tuley High School.  
*University High School.*  
 Waller High School.  
 Chicago Heights—Bloom Township High School.  
 Cicero—J. Sterling Morton Township High School.  
 Clinton—High School.  
 Collinsville—High School (Township).  
 Danville—High School.  
 Decatur—High School.  
 De Kalb—High School (Township).  
 Des Plaines—Maine Township High School.  
 Dixon—  
   High School.  
   North High School.  
 Downers Grove—High School.  
 Dundee—High School.  
 Duquoin—High School (Township).  
 East St. Louis—High School.  
 Edwardsville—High School.  
 Elgin—  
   *Academy.*  
   High School.  
 Elmhurst—*Evangelical Proseminar.*  
 Evanston—  
   *Academy.*  
   High School (Township).  
 Farmer City—Moore Township High School.  
 Freeport—High School.  
 Galesburg—High School.  
 Galva—High School.  
 Geneseo—High School (Township).  
 Geneva—High School.  
 Gibson City—Drummer Township High School.  
 Godfrey—*Monticello Seminary.*  
 Granite City—High School.  
 Harrisburg—High School (Township).  
 Harvard—High School.  
 Harvey—Thornton Township High School.  
 Highland Park—  
   Deerfield Township High School.  
   *Northwestern Military Academy.*  
 Hinsdale—High School (Township).  
 Hoopeston—High School.

## Jacksonville—

High School.  
*Illinois Woman's College Academy.*  
*Whipple Academy.*  
 Joliet—High School (Township).  
 Kankakee—High School.  
 Kenilworth—New Trier Township High School.  
 Kewanee—High School.  
 La Grange—Lyons Township High School.  
 Lake Forest—  
   *Academy.*  
   *Ferry Hall.*  
 La Salle—La Salle-Peru Township High School.  
 Lawrenceville—High School (Township).  
 Lincoln—High School.  
 Lockport—High School (Township).  
 Lovington—High School (Township).  
 Macomb—  
   Academic Department of Normal School.  
   High School.  
 Marengo—High School.  
 Marshall—High School (Township).  
 Mattoon—High School.  
 Maywood—Proviso Township High School.  
 Moline—High School.  
 Monmouth—High School.  
 Morris—High School.  
 Morrison—High School.  
 Mount Carmel—High School.  
 Mount Carroll—*Frances Shiner School.*  
 Mount Vernon—High School (Township).  
 Murphysboro—High School (Township).  
 Naperville—  
   High School.  
   *Northwestern College Academy.*  
 Normal—High School.  
 Normal University—High School.  
 Oak Park—Oak Park and River Forest Township  
   High School.  
 Onarga—*Grand Prairie Seminary.*  
 Ottawa—High School (Township).  
 Paris—High School.  
 Paxton—High School.  
 Pekin—High School.  
 Peoria—  
   *Bradley Polytechnic Institute.*  
   Central High School.  
   Manual Training High School.  
 Polo—High School.  
 Pontiac—High School (Township).  
 Princeton—High School (Township).  
 Quincy—High School.  
 Riverside—High School.  
 Robinson—High School (Township).  
 Rochelle—High School.  
 Rockford—High School.  
 Rock Island—  
   *Augustana Academy.*  
   High School.  
 St. Charles—High School.  
 Savannah—High School (Township).  
 Shelbyville—High School.  
 Springfield—High School.  
 Sterling—High School (Township).  
 Streator—High School (Township).  
 Sullivan—High School.  
 Scammon—High School.

Taylorville—High School (Township).  
 Tuscola—High School.  
 Urbana—High School.  
 Watseka—High School.  
 Waukegan—High School (Township).

West Chicago—High School.  
 Wheaton—  
*Academy.*  
 High School.  
 Woodstock—High School.

## INDIANA.

Alexandria—High School.  
 Anderson—High School.  
 Attica—High School.  
 Bedford—High School.  
 Bloomington—High School.  
 Brazil—High School.  
 Bremen—High School.  
 Clinton—High School.  
 Columbus—High School.  
 Connersville—  
*Elmhurst School.*  
 High School.  
 Crawfordsville—High School.  
 Crown Point—High School.  
 Culver—*Military Academy.*  
 Decatur—High School.  
 East Chicago—High School.  
 Elkhart—High School.  
 Evansville—High School.  
 Fort Wayne—High School.  
 Frankfort—High School.  
 Franklin—High School.  
 Gary—High School.  
 Goshen—High School.  
 Hammond—High School.  
 Hartford City—High School.  
 Howe—School.  
 Huntington—High School.  
 Indianapolis—  
 Manual Training High School.  
 Shortridge—High School.  
 Jeffersonville—High School.  
 Kendallville—High School.  
 Kokomo—High School.  
 Lafayette—High School.  
 La Grange—High School.  
 La Porte—High School.  
 Lawrenceburg—High School.

Lebanon—High School.  
 Ligonier—High School.  
 Logansport—High School.  
 Madison—High School.  
 Michigan City—High School.  
 Mishawaka—High School.  
 Monticello—High School.  
 Mount Vernon—High School.  
 Muncie—High School.  
 New Albany—High School.  
 New Castle—High School.  
 Noblesville—High School.  
 North Manchester—High School.  
 Peru—High School.  
 Plymouth—High School.  
 Princeton—High School.  
 Rensselaer—High School.  
 Richmond—High School.  
 Rochester—High School.  
 Rockport—High School.  
 Rushville—High School.  
 Shelbyville—High School.  
 Sheridan—High School.  
 South Bend—High School.  
 Sullivan—High School.  
 Terre Haute—  
 Garfield High School.  
 Normal Training High School.  
 Indiana State Normal Training High School.  
 Wiley High School.  
 Union City—High School.  
 Valparaiso—High School.  
 Vincennes—High School.  
 Wabash—High School.  
 Washington—High School.  
 West Lafayette—High School.  
 Whiting—High School.  
 Winchester—High School.

## IOWA.

Albia—High School.  
 Algona—High School.  
 Ames—High School.  
 Audubon—High School.  
 Bedford—High School.  
 Boone—High School.  
 Burlington—High School.  
 Carroll—High School.  
 Cedar Falls—  
 High School.  
 Iowa State Teachers College, Training School.  
 Cedar Rapids—High School.  
 Centerville—High School.  
 Charles City—High School.  
 Cherokee—High School.  
 Clarinda—High School.  
 Clinton—High School.  
 Corning—High School.

Corydon—High School.  
 Council Bluffs—High School.  
 Creco—High School.  
 Creston—High School.  
 Davenport—High School.  
 Decorah—High School.  
 Denison—High School.  
 Des Moines—  
 East High School.  
 North High School.  
 West High School.  
 Dubuque—High School.  
 Eagle Grove—High School.  
 Elkader—High School.  
 Emmetsburg—High School.  
 Fairfield—High School.  
 Fort Dodge—High School.  
 Fort Madison—High School.

Grinnell—High School.  
 Independence—High School.  
 Indianola—High School.  
 Iowa City—High School.  
 Iowa Falls—High School.  
 Keokuk—High School.  
 Lemars—High School.  
 Logan—High School.  
 Manchester—High School.  
 Maquoketa—High School.  
 Marengo—High School.  
 Marshalltown—High School.  
 Mason City—High School.  
 Missouri Valley—High School.  
 Monticello—High School.  
 Mount Pleasant—High School.  
 Muscatine—High School.  
 Newton—High School.  
 Osage—High School.

Onawa—High School.  
 Oskaloosa—  
     High School.  
     *Penn College Academy.*  
 Ottumwa—High School.  
 Red Oak—High School.  
 Sheldon—High School.  
 Sibley—High School.  
 Sioux City—High School.  
 Spencer—High School.  
 Vinton—High School.  
 Washington—High School.  
 Waterloo—  
     East High School.  
     West High School.  
 Waverly—High School.  
 Webster City—High School.  
 West Liberty—High School.

## KANSAS.

Abilene—High School.  
 Alma—High School.  
 Anthony—High School.  
 Argentine—High School.  
 Arkansas City—High School.  
 Atchison—High School.  
 Baldwin—*Baker Academy.*  
 Burlington—High School.  
 Chanute—High School.  
 Chapman—Dickinson County High School.  
 Cherryvale—High School.  
 Clay Center—Clay County High School.  
 Coffeyville—High School.  
 Columbus—Cherokee County High School.  
 Concordia—High School.  
 Cottonwood Falls—Chase County High School.  
 Dodge City—High School.  
 Effingham—Atchison County High School.  
 El Dorado—High School.  
 Emporia—High School.  
 Eureka—High School.  
 Fort Scott—High School.  
 Garden City—High School.  
 Garnett—High School.  
 Great Bend—High School.  
 Herington—High School.  
 Hiawatha—High School.  
 Holsington—High School.  
 Holton—High School.  
 Horton—High School.  
 Humboldt—High School.  
 Hutchinson—High School.  
 Independence—Montgomery County High School.  
 Iola—High School.  
 Junction City—High School.  
 Kansas City—  
     High School.  
     Sumner High School (closed).  
 Kingman—High School.

Kinsley—High School.  
 Lawrence—High School.  
 Leavenworth—High School.  
 McPherson—High School.  
 Manhattan—High School.  
 Marion—High School.  
 Marysville—High School.  
 Minneapolis—High School.  
 Neodesha—High School.  
 Newton—  
     *Bethel Academy.*  
     High School.  
 Nickerson—Reno County High School.  
 Oberlin—Decatur County High School.  
 Olathe—High School.  
 Ottawa—  
     High School.  
     *University Academy.*  
 Paola—High School.  
 Peabody—High School.  
 Pratt—High School.  
 Pittsburg—High School.  
 Rosedale—High School.  
 Sabetha—High School.  
 St. John—High School.  
 Salina—High School.  
 Seneca—High School.  
 Stafford—High School.  
 Sterling—High School.  
 Topeka—  
     High School.  
     *Washburn Academy.*  
 Wakeeney—Trego County High School.  
 Washington—High School.  
 Wellington—Sumner County High School.  
 Wichita—High School.  
 Winfield—High School.  
 Yates Center—High School.

## MICHIGAN.

Adrian—High School.  
 Albion—High School.  
 Alma—High School.  
 Alpena—High School.  
 Ann Arbor—High School.

Battle Creek—High School.  
 Bay City—  
     East side—High School.  
     West side—High School.  
 Benton Harbor—High School.

Bessemer—High School.  
 Big Rapids—*Ferris Institute*.  
 Birmingham—High School.  
 Boyne City—High School.  
 Cadillac—High School.  
 Calumet—High School.  
 Charlevoix—High School.  
 Charlotte—High School.  
 Cheboygan—High School.  
 Chelsea—High School.  
 Coldwater—High School.  
 Crystal Falls—High School.  
 Detroit—  
     Central High School.  
     Eastern High School.  
     *Liggett School*.  
     McMillan High School.  
     Northwestern High School.  
     *University School*.  
     Western High School.  
 Dollar Bay—High School.  
 Dowagiac—High School.  
 Escanaba—High School.  
 Evarts—High School.  
 Flint—High School.  
 Fremont—High School.  
 Gladstone—High School.  
 Grand Rapids—  
     Central High School.  
     *Calvin College—Preparatory School*.  
     South Grand Rapids High School.  
     Union High School.  
 Grand Haven—High School.  
 Greenville—High School.  
 Hancock—High School.  
 Hart—High School.  
 Hastings—High School.  
 Highland Park—High School.  
 Hillsdale—High School.  
 Holland—High School.  
 Houghton—High School.  
 Hudson—High School.  
 Iona—High School.  
 Iron Mountain—High School.  
 Ironwood—High School.  
 Ishpeming—High School.

Jackson—High School.  
 Kalamazoo—High School.  
 Lake Linden—High School.  
 Lansing—High School.  
 Lapeer—High School.  
 Lowell—High School.  
 Ludington—High School.  
 Manistee—High School.  
 Manistique—High School.  
 Marshall—High School.  
 Marquette—High School.  
 Menominee—High School.  
 Midland—High School.  
 Monroe—High School.  
 Muskegon—High School.  
 Mount Clemens—High School.  
 Mount Pleasant—High School.  
 Negaunee—High School.  
 Niles—High School.  
 Norway—High School.  
 Ontonagon—High School.  
 Otsego—High School.  
 Owosso—High School.  
 Painesdale—High School.  
 Paw Paw—High School.  
 Petoskey—High School.  
 Pontiac—High School.  
 Port Huron—High School.  
 Portland—High School.  
 River Rouge—High School.  
 Saginaw—  
     East side—High School.  
     West side—High School.  
 Sault Ste. Marie—High School.  
 South Haven—High School.  
 St. Johns—High School.  
 St. Joseph—High School.  
 St. Louis—High School.  
 Sturgis—High School.  
 Three Rivers—High School.  
 Traverse City—High School.  
 Union City—High School.  
 Wakefield—High School.  
 Williamston—High School.  
 Wyandotte—High School.  
 Ypsilanti—High School.

### MINNESOTA.

Aitken—High School.  
 Albert Lea—High School.  
 Alexandria—High School.  
 Anoka—High School.  
 Austin—High School.  
 Bemidji—High School.  
 Blue Earth—High School.  
 Brainerd—High School.  
 Canby—High School.  
 Chisholm—High School.  
 Cloquet—High School.  
 Coleraine—High School.  
 Crookston—High School.  
 Detroit—High School.  
 Duluth—  
     Central High School.  
     R. E. Denfeld High School.  
 East Grand Forks—High School.

Ely—High School.  
 Eveleth—High School.  
 Fairmont—High School.  
 Faribault—High School.  
 Fergus Falls—High School.  
 Gilbert—High School.  
 Glencoe—High School.  
 Grand Rapids—High School.  
 Hastings—High School.  
 Hector—High School.  
 Hibbing—High School.  
 Hopkins—High School.  
 Hutchinson—High School.  
 Jackson—High School.  
 Lake City—High School.  
 Litchfield—High School.  
 Little Falls—High School.  
 Luverne—High School.



Mankato—High School.  
 Marshall—High School.  
 Millace—High School.  
 Minneapolis—  
   Central High School.  
   East High School.  
   North High School.  
   South High School.  
   West High School.  
 Montevideo—High School.  
 Moorhead—High School.  
 Morris—High School.  
 New Ulm—High School.  
 Northfield—High School.  
 Owatonna—High School.  
 Pipestone—High School.  
 Red Wing—High School.  
 Redwood Falls—High School.  
 St. Cloud—High School.  
 St. James—High School.  
 St. Paul—  
   Central High School.

St. Paul—Continued.  
   Cleveland High School.  
   Humboldt High School.  
   John A. Johnson High School.  
   Mechanic Arts High School.  
 St. Peter—High School.  
 Sauk Center—High School.  
 Sleepy Eye—High School.  
 South St. Paul—High School.  
 Spring Valley—High School.  
 Stillwater—High School.  
 Thief River Falls—High School.  
 Two Harbors—High School.  
 Virginia—High School.  
 Wadena—High School.  
 Waseca—High School.  
 Wells—High School.  
 Willmar—High School.  
 Windom—High School.  
 Winona—High School.  
 Worthington—High School.

## MISSOURI.

Boonville—*Kemper Military School.*  
 Butler—High School.  
 Cameron—High School.  
 Carrollton—High School.  
 Carthage—High School.  
 Charleston—High School.  
 Chillicothe—High School.  
 Clayton—High School.  
 Columbia—  
   *Christian College Academy.*  
   High School.  
   *Stephens College Academy.*  
   University High School.  
 Ferguson—High School.  
 Fredericktown—High School.  
 Fulton—High School.  
 Hannibal—High School.  
 Higginsville—High School.  
 Jefferson City—High School.  
 Joplin—High School.  
 Kansas City—  
   Central High School.  
   Manual Training High School.  
   North East High School.  
   Westport High School.  
 Kennett—High School.  
 Kirkwood—High School.  
 Lamar—High School.  
 Lebanon—High School.  
 Lexington—  
   High School.  
   *Wentworth Military Academy.*  
 Maplewood—High School.  
 Maryville—High School.

Mexico—  
   High School.  
   *Hardin College Academy.*  
 Nevada—  
   *Cotley College Academy.*  
   High School.  
 Paris—High School.  
 Poplar Bluff—High School.  
 St. Charles—  
   High School.  
   *Lindenwood College Academy.*  
 St. Joseph—High School.  
 St. Louis—  
   Central High School.  
   *Hoerner Hall.*  
   *Lenox Hall.*  
   McKinley High School.  
   *Manual Training School, Washington University.*  
   *Mary Institute.*  
   *Smith Academy.*  
   Soldan High School.  
   Sumner High School.  
   *The Principia.*  
   Yeastman High School.  
 Savannah—High School.  
 Sedalia—High School.  
 Shelbyville—High School.  
 Slater—High School.  
 Trenton—High School.  
 Webb City—High School.  
 Webster Grove—High School.  
 Wellston—High School.  
 West Plains—High School.

## MONTANA.

Anaconda—High School.  
 Bigtimber—Sweet Grass County High School.  
 Billings—High School.  
 Bozeman—Gallatin County High School.  
 Butte—High School.  
 Chinook—High School.

Deer Lodge—Powell County High School.  
 Dillon—Beaverhead County High School.  
 Glendive—Dawson County High School.  
 Great Falls—High School.  
 Hamilton—High School.  
 Havre—High School.

Helena—High School.  
 Kalispell—Flathead County High School.  
 Lewistown—Fergus County High School.  
 Livingston—Park County High School.

Miles City—Custer County High School.  
 Missoula—County High School.  
 Phillipsburg—Granite County High School.  
 Red Lodge—Carbon County High School.

### NEBRASKA.

Albion—High School.  
 Alliance—High School.  
 Ashland—High School.  
 Auburn—High School.  
 Aurora—High School.  
 Beatrice—High School.  
 Benson—High School.  
 Blair—High School.  
 Broken Bow—High School.  
 Central City—High School.  
 Columbia—High School.  
 Crete—High School.  
 Edgar—High School.  
 Fairbury—High School.  
 Fairfield—High School.  
 Fairmont—High School.  
 Falls City—High School.  
 Franklin—*Academy*.  
 Fremont—High School.  
 Friend—High School.  
 Fullerton—High School.  
 Geneva—High School.  
 Grand Island—High School.  
 Harvard—High School.  
 Hastings—  
     *Academy*.  
     High School.  
 Havelock—High School.  
 Hebron—High School.  
 Holdrege—High School.  
 Humboldt—High School.  
 Kearney—High School.

Lexington—High School.  
 Lincoln—  
     High School.  
     Teachers' College High School, University of  
     Nebraska.  
 McCook—High School.  
 Mindon—High School.  
 Nebraska City—High School.  
 Neligh—High School.  
 Newman Grove—High School.  
 Norfolk—High School.  
 North Platte—High School.  
 Omaha—  
     *Brownell Hall*.  
     High School.  
 Pawnee—High School.  
 Ravenna—High School.  
 Red Cloud—High School.  
 Schuyler—High School.  
 Scottsbluff—High School.  
 Seward—High School.  
 Shelton—High School.  
 South Omaha—High School.  
 Stanton—High School.  
 Superior—High School.  
 Tecumseh—High School.  
 Tekamah—High School.  
 University Place—  
     High School.  
     *Nebraska Wesleyan Academy*.  
 Wahoo—High School.  
 York—High School.

### NORTH DAKOTA.

Agricultural College—Agricultural and Manual  
 Training High School.  
 Beach—High School.  
 Bismarck—High School.  
 Bottineau—High School.  
 Cando—High School.  
 Carrington—High School.  
 Casselton—High School.  
 Cavalier—High School.  
 Cooperstown—High School.  
 Devils Lake—High School.  
 Dickinson—High School.  
 Edgeley—High School.  
 Fargo—High School.  
 Grafton—High School.  
 Grand Forks—High School.  
 Hope—High School.

Jamestown—High School.  
 Kenmare—High School.  
 Lakota—High School.  
 La Moure—High School.  
 Langdon—High School.  
 Larimore—High School.  
 Lisbon—High School.  
 Mandan—High School.  
 Minot—High School.  
 New Rockford—High School.  
 Park River—High School.  
 Rugby—High School.  
 University—Model High School.  
 Valley City—High School.  
 Wahpeton—High School.  
 Williston—High School.

### OHIO.

Akron—  
     Central High School.  
     South High School.  
     West High School.  
 Alliance—High School.  
 Ashland—High School.

Ashtabula—High School.  
 Ashtabula Harbor—High School.  
 Barberton—High School.  
 Bellaire—High School.  
 Bellefontaine—High School.  
 Bellevue—High School.

Bluffton—High School.  
 Bowling Green—High School.  
 Bryan—High School.  
 Bucyrus—High School.  
 Cambridge—High School.  
 Canal Dover—High School.  
 Canton—High School.  
 Celina—High School.  
 Chardon—High School.  
 Chicago Junction—High School.  
 Chillicothe—High School.  
 Cincinnati—  
     *College Preparatory School for Girls.*  
     *Franklin School.*  
     Hartwell High School.  
     Hughes High School.  
     Pleasant Ridge—High School.  
     *University School.*  
     Walnut Hills High School.  
     Woodward High School.  
 Circleville—High School.  
 Cleveland—  
     Central High School.  
     East High School.  
     East Technical High School.  
     Glenville High School.  
     Lincoln High School.  
     South High School.  
     *University School.*  
     West High School.  
     West Technical High School.  
 Cleveland Heights—High School.  
 Columbiana—High School.  
 Columbus—  
     Clinton High School.  
     East High School.  
     North High School.  
     South High School.  
     *School for Girls.*  
     West High School.  
 Conneaut—High School.  
 Coshocton—High School.  
 Crestline—High School.  
 Cuyahoga Falls—High School.  
 Danville—High School.  
 Dayton—  
     Steele High School.  
     *St. Mary's Institute.*  
     Stivers Manual Training High School.  
 Defiance—High School.  
 Delaware—High School.  
 Delphos—High School.  
 Dennison—High School.  
 East Cleveland—High School.  
 East Liverpool—High School.  
 East Palestine—High School.  
 Eaton—High School.  
 Elyria—High School.  
 Findlay—High School.  
 Fostoria—High School.  
 Fremont—High School.  
 Gallon—High School.  
 Gallipolis—High School.  
 Geneva—High School.  
 Girard—High School.  
 Granville—*Doane Academy.*  
 Greenfield—High School.

Greenville—High School.  
 Hamilton—High School.  
 Hillsboro—High School.  
 Ironton—High School.  
 Jackson—High School.  
 Jefferson—High School.  
 Kent—High School.  
 Kenton—High School.  
 Lakewood—High School.  
 Lancaster—High School.  
 Leroy—High School.  
 Lima—High School.  
 Lisbon—High School.  
 Lockland—High School.  
 Logan—High School.  
 London—High School.  
 Lorain—High School.  
 Madisonville—High School.  
 Mansfield—High School.  
 Marietta—High School.  
 Marion—High School.  
 Martins Ferry—High School.  
 Marysville—High School.  
 Maessillon—High School.  
 Madina—High School.  
 Miamisburg—High School.  
 Middletown—High School.  
 Mount Vernon—High School.  
 Napoleon—High School.  
 Nelsonville—High School.  
 Newark—High School.  
 New Bremen—High School.  
 New Concord—High School.  
 New Lexington—High School.  
 New Philadelphia—High School.  
 Niles—High School.  
 Norwalk—High School.  
 Norwood—High School.  
 Oak Harbor—High School.  
 Oberlin—  
     *Academy.*  
     High School.  
 Orrville—High School.  
 Painesville—High School.  
 Piqua—High School.  
 Plain City—High School.  
 Pomeroy—High School.  
 Port Clinton—High School.  
 Portsmouth—High School.  
 Ravenna—High School.  
 Rely—High School (Township).  
 Rio Grande—  
     Raccoon Township High School.  
 Salem—High School.  
 Sandusky—High School.  
 Shelby—High School.  
 Springfield—High School.  
 Sidney—High School.  
 Steubenville—High School.  
 Saint Marys—High School.  
 Tiffin—High School.  
 Tippecanoe City—High School.  
 Toledo—  
     Scott High School.  
     *Smead School.*  
     Waite High School.  
 Troy—High School.

Uhrichsville—High School.  
 Upper Sandusky—High School.  
 Urbana—  
     High School.  
     *University School.*  
 Van Wert—High School.  
 Wadsworth—High School.  
 Wapakoneta—High School.  
 Warren—High School.  
 Washington Courthouse—High School.  
 Wauseon—High School.  
 Wellston—High School.  
 Wellsville—High School.

Westerville—High School.  
 West Jefferson—High School.  
 Willoughby—High School.  
 Wilmington—High School.  
 Wooster—  
     *Academy.*  
     High School.  
 Wyoming—High School.  
 Xenia—High School.  
 Youngstown—  
     Rayen High School.  
     South High School.  
 Zanesville—High School.

## OKLAHOMA.

Ardmore—High School.  
 Bartlesville—High School.  
 Blackwell—High School.  
 Chickasha—High School.  
 El Reno—High School.  
 Enid—  
     High School.  
     *Phillips University High School.*  
 Guthrie—High School.  
 Hugo—High School.  
 Lawton—High School.

McAlester—High School.  
 Muskogee—High School.  
 Okmulgee—High School.  
 Oklahoma—High School.  
 Sepulpa—High School.  
 Tonkawa—University Preparatory School.  
 Tulsa—  
     *Henry Kendall Academy.*  
     High School.  
 Vinita—High School.

## SOUTH DAKOTA.

Aberdeen—High School.  
 Armour—High School.  
 Brookings—High School.  
 Canton—High School.  
 Clark—High School.  
 Deadwood—High School.  
 Flandreau—High School.  
 Huron—High School.  
 Lead—High School.  
 Madison—High School.  
 Milbank—High School.  
 Miller—High School.

Mitchell—High School.  
 Pierre—High School.  
 Rapid City—High School.  
 Redfield—High School.  
 Sioux Falls—  
     *All Saints School.*  
     High School.  
 Vermillion—High School.  
 Watertown—High School.  
 Webster—High School.  
 Yankton—High School.

## WISCONSIN.

Antigo—High School.  
 Appleton—High School.  
 Ashland—High School.  
 Baraboo—High School.  
 Beaver Dam—  
     High School.  
     *Wayland Academy.*  
 Beloit—High School.  
 Berlin—High School.  
 Boscobel—High School.  
 Burlington—High School.  
 Chippewa Falls—High School.  
 Columbus—High School.  
 Delafield—*St. John's Military Academy.*  
 Delavan—High School.  
 Dodgeville—High School.  
 Eau Claire—High School.  
 Edgerton—High School.  
 Elkhorn—High School.  
 Ellsworth—High School.  
 Elroy—High School.  
 Evansville—High School.  
 Fennimore—High School.

Fond du Lac—High School.  
 Fort Atkinson—High School.  
 Grand Rapids—High School.  
 Green Bay—  
     (East)—High School.  
     (West)—High School.  
 Hartford—High School.  
 Hudson—High School.  
 Janesville—High School.  
 Kaukauna—High School.  
 Kenosha—High School.  
 La Crosse—High School.  
 Lake Geneva—High School.  
 Lancaster—High School.  
 Lodi—High School.  
 Madison—  
     High School.  
     Wisconsin High School.  
 Manitowoc—High School.  
 Marinette—High School.  
 Marshfield—High School.  
 Medford—High School.  
 Menasha—High School.

Menomonie—High School.  
 Merrill—High School.  
 Milwaukee—  
     (East)—High School.  
     (North)—High School.  
     (South)—High School.  
     (West)—High School.  
     *Milwaukee-Downer Seminary.*  
 Mineral Point—High School.  
 Monroe—High School.  
 Neenah—High School.  
 Neillsville—High School.  
 New London—High School.  
 New Richmond—High School.  
 Oconomowoc—High School.  
 Oconto—High School.  
 Oakshosh—High School.  
 Platteville—High School.  
 Plymouth—High School.  
 Portage—High School.  
 Racine—  
     College Grammar School.  
     High School.  
 Reedsburg—High School.  
 Rhinelander—High School.  
 Rice Lake—High School.

Richland Center—High School.  
 Ripon—High School.  
 River Falls—High School.  
 Sheboygan—High School.  
 Sinsinawa—*St Clara Academy.*  
 South Milwaukee—High School.  
 Sparta—High School.  
 Stanley—High School.  
 Stevens Point—High School.  
 Stoughton—High School.  
 Sturgeon Bay—High School.  
 Superior—  
     Central High School.  
     Nelson Dewey High School.  
 Tomah—High School.  
 Washburn—High School.  
 Watertown—High School.  
 Waukesha—High School.  
 Waupaca—High School.  
 Waupun—High School.  
 Wausau—High School.  
 Wauwatosa—High School.  
 West Allis—High School.  
 West Bend—High School.  
 Whitewater—High School.

### WYOMING.

Casper—High School.  
 Cheyenne—High School.

Laramie—High School.  
 Sheridan—High School.

## PART III.—LISTS OF CERTAIN PRIVATE INSTITUTIONS.

### Schools in Washington, D. C., Accredited by George Washington University, April, 1916.

	Units.
Admission requirements.....	15
Prescribed units:	
English.....	3
Mathematics.....	2½
Foreign languages.....	2
Electives.....	7½

<p><i>Army and Navy Preparatory School.</i>  <i>Bristol School.</i>  <i>Business High School.</i>  <i>Central High School.</i>  <i>Chey Chase Seminary.</i>  <i>Eastern High School.</i>  <i>Emerson Institute.</i>  <i>Fairmont Seminary.</i>  <i>Friends' Select School.</i>  <i>Gunston Hall.</i>  <i>Hall-Noyes School.</i>  <i>Holton-Arms School.</i></p>	<p><i>Madra School for Girls.</i>  <i>Manual Training High School.</i>  <i>Martha Washington Seminary.</i>  <i>Mount Vernon Seminary.</i>  <i>Misses Eastman's School.</i>  <i>National Cathedral for Boys.</i>  <i>National Cathedral School for Girls.</i>  <i>University Preparatory School.</i>  <i>Washington Collegiate School.</i>  <i>Washington College.</i>  <i>Western High School.</i></p>
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### Schools Affiliated to the Catholic University of America, April, 1916.

	Units.
Admission requirements.....	15
Prescribed units:	
Religion.....	2
English.....	3
Some language other than English.....	2
Mathematics.....	2
Social science (including history).....	1
Natural science.....	1
Electives (must be selected in such a way as to give another course besides English of 3 units).....	4

<p><b>Alabama:</b>            Birmingham—<i>Blessed Sacrament Academy.</i></p> <p><b>California:</b>            San Francisco—<i>College of Notre Dame, High School Department.</i></p> <p><b>San Jose—</b>            <i>College of Notre Dame, Secondary Department.</i>            <i>Notre Dame High School.</i></p> <p><b>Colorado:</b>            Denver—<i>St. Mary's Academy.</i>            Loretto—<i>Loretto Heights Academy.</i></p> <p><b>Connecticut:</b>            Hartford—<i>Mount St. Joseph Seminary.</i>            Milford—<i>Academy of Our Lady of Mercy.</i>            Waterbury—<i>Notre Dame Academy.</i></p> <p><b>Florida:</b>            Miami—<i>Academy of the Sisters of St. Joseph.</i>            St. Augustine—<i>St. Joseph's Academy.</i></p> <p><b>Georgia:</b>            Augusta—<i>Mount St. Joseph Academy.</i></p>	<p><b>Illinois:</b>            Kankakee—<i>St. Joseph Seminary.</i>            Rock Island—<i>Villa de Chantal.</i></p> <p><b>Indiana:</b>            Oldenburg—<i>Immaculate Conception Academy.</i>            St. Mary's—<i>St. Mary-of-the-Woods Academy.</i></p> <p><b>Iowa:</b>            Cedar Rapids—<i>Sacred Heart Academy.</i>            Dubuque—                <i>Mount St. Joseph Academy.</i>                <i>St. Francis High School.</i>                <i>St. Joseph's Academy.</i>                <i>St. Joseph Academy.</i>            Dyersville—<i>St. Francis Academy.</i>            Elma—<i>Immaculate Conception Academy.</i>            New Hampton—<i>St. Mary's High School.</i>            Riverside—<i>St. Mary Convent.</i>            Waterloo—<i>St. Mary's High School.</i></p> <p><b>Kansas:</b>            Wichita—<i>Cathedral High School.</i></p>
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**Kentucky:**Covington—*Villa Madonna Academy.*Loretto—*Loretto Academy.*Nazareth—*Nazareth Academy.*

Newport—

*Academy Notre Dame of Providence.**Mount St. Martin's Convent.***Maryland:**Mount Washington—*Mount St. Agnes High School.***Massachusetts:**Arlington Heights—*Marycliff Academy.*Boston—*Boston Academy of Notre Dame.*Lowell—*Notre Dame Academy.*Roxbury—*Notre Dame Academy.*Watertown—*Sacred Heart Academy.***Michigan:**Ironwood—*St. Ambrose High School.***Minnesota:**Duluth—*Villa Sancta Scholastica.*St. Joseph—*St. Benedict's Academy.***Missouri:**

Kansas City—

*De la Salle Academy.**Loretto Academy.**St. Theresa's Academy.*St. Joseph—*Cathedral High School.*

St. Louis—

*Loretto Academy.**St. Elizabeth's Institute.**The Academy of the Visitation.*Springfield (Elfindale)—*St. de Chantal Academy of the Visitation.***Nebraska:**Hastings—*Immaculate Conception Academy.***New Jersey:**Caldwell—*Mount St. Dominic Academy.***New York:**Lockport—*St. Joseph's Academy.*Tarrytown-on-Hudson—*Marymount.***Ohio:**

Cincinnati—

*Notre Dame Academy (Court and Mound Streets).**Notre Dame Academy (East Sixth Street).**Notre Dame Academy (Grandin Road).**Our Lady of Mercy Academy.**St. Mary High School (Hyde Park).**St. Ursula's Academy.*Cleveland—*Ursuline Academy.*Columbus—*St. Joseph's Academy.*Dayton—*Notre Dame Academy.*Hamilton—*Notre Dame Academy.*Maria Stein—*Mother House, Sisters of the Precious Blood.*New Lexington—*St. Aloysius Academy.*Nottingham—*Ursuline Academy.*Reading—*Mount Notre Dame Academy.***Ohio—Continued.**St. Joseph—*Mount St. Joseph-on-the-Ohio.*Springfield—*St. Raphael's School.*Toledo—*St. Francis de Sales Cathedral High School.***Oklahoma:**Guthrie—*St. Joseph's Academy.***Pennsylvania:**Frazer—*Villa Maria Academy.*Glen Riddle—*Our Lady of Angels High School.*Greensburg—*St. Joseph Academy.*Hazleton—*St. Gabriel's High School.*

Philadelphia—

*Academy of Notre Dame.**Academy of the Holy Child Jesus.**Academy of the Sisters of Mercy.**Mount St. Joseph Convent (Chestnut Hill).*

Pittsburgh—

*Holy Rosary High School.**Lady of Mercy Academy.**St. Paul's Cathedral High School.*Pittston—*St. John's High School.*

Scranton—

*Mount St. Mary's Seminary.**St. Cecilia Academy.*Sharon Hill—*Academy of the Holy Child Jesus.*Wilkes-Barre—*St. Mary's High School.***Tennessee:**

Nashville—

*St. Bernard Academy.**St. Cecilia's Academy.***Texas:**

Dallas—

*Our Lady of Good Counsel Academy.**St. Edward's Academy.*Denison—*St. Xavier's Academy.*Forth Worth—*Our Lady of Victory Academy.*

San Antonio—

*Academy of the Incarnate Word.**Our Lady of the Lake Academy.*Sherman—*St. Joseph's Academy.*Waco—*Sacred Heart Academy.*Wichita Falls—*Mary Immaculate Academy.***Virginia:**Bristow—*St. Edith Academy.***Washington:**Seattle—*Holy Names Academy.*Spokane—*Holy Names Academy.*Tacoma—*Aquinas Academy.***Wisconsin:**Altosna—*St. Mary's Academy and High School.*

Fond du Lac—

*St. Agnes Convent Normal School.**St. Mary's Springs Academy.*Green Bay—*St. Joseph Academy.*Milwaukee—*St. Mary's Academy.*Simsnawa—*St. Clara Academy.*

# ACCREDITED BY THE UNIVERSITY OF CHICAGO, CHICAGO, ILL., APRIL, 1916.

(In addition to the following, the schools belonging to the North Central Association of Colleges and Secondary Schools (see p. 96) are accredited by the University of Chicago.)

	Unit.
Admission requirements.....	15
Prescribed units:	
English.....	3
Selected from the following subjects: Latin, Greek, modern language, history, mathematics, science.....	7
Electives.....	5
<b>Alabama:</b>	
Birmingham—Central High School.	
Mobile—High School.	
Montgomery—Girls' High School.	
<b>Arkansas:</b>	
Fort Smith—High School.	
Hot Springs—High School.	
Little Rock—High School.	
<b>California:</b>	
Los Angeles—High School.	
Pasadena—High School.	
San Francisco—Girls' High School.	
<b>Georgia:</b>	
Atlanta—Girls' High School.	
<b>Idaho:</b>	
Boise—High School.	
Pocatello—High School.	
<b>Kentucky:</b>	
Louisville—	
Boys' High School.	
Girls' High School.	
Manual Training High School.	
Owensboro—High School.	
Paducah—High School.	
<b>Louisiana:</b>	
Alexandria—Bolton High School.	
Monroe—High School.	
<b>Pennsylvania:</b>	
Harrisburg—High School.	
<b>Tennessee:</b>	
Pulaski—Masey High School.	
<b>Texas:</b>	
Amarillo—High School.	
Austin—High School.	
Beaumont—High School.	
Dallas—	
Main High School.	
Oak Cliff High School.	
Denison—High School.	
El Paso—High School.	
Fort Worth—High School.	
Galveston—High School.	
Hillsboro—High School.	
Houston—High School.	
San Antonio—High School.	
Waco—High School.	
<b>Utah:</b>	
Ogden—High School.	
<b>Washington:</b>	
Seattle—Broadway High School.	
Spokane—	
Central High School.	
Lewis and Clark High School.	
<b>West Virginia:</b>	
Glenville—High School Department of State Normal School.	

## Affiliated with Tulane University of Louisiana, March, 1916.

	Units.
Entrance requirements.....	15
Prescribed units:	
English.....	3
Mathematics.....	3
Foreign language.....	2
Latin.....	3
Greek, or science (1) and history (1).....	2
Electives.....	2
<b>Alabama:</b>	
Birmingham—City High School.	
Gadsden—High School.	
Marion— <i>Military Institute.</i>	
Mobile—	
High School.	
<i>University Military School.</i>	
Montgomery— <i>University School.</i>	
<b>Arkansas:</b>	
Hope—High School.	
Magnolia—High School.	
Pine Bluff—High School.	
<b>Florida:</b>	
Pensacola—High School.	
<b>Georgia:</b>	
Columbus—High School.	
<b>Louisiana:</b>	
Abbeville—High School.	
Alexandria—High School.	
Arcadia—High School.	
<b>Louisiana—Continued.</b>	
Bastrop—High School.	
Baton Rouge—High School.	
Blenville—High School.	
Brusly—High School.	
Crowley—High School.	
Donaldsonville—High School.	
Franklin—High School.	
Gibland—High School.	
Hammond—High School.	
Homer—High School.	
Houma—	
High School.	
<i>Lorton Preparatory School.</i>	
Jennings—High School.	
Lake Charles—High School.	
Marksville—High School.	
Minden—Graded High School.	



**Louisiana—Continued.****Monroe—**

City High School.

Ouachita Parish High School.

Napoleonville—High School.

New Iberia—High School.

**New Orleans—***Chenet Institute.**Holy Cross Academy.**L. C. Ferrell's School for Boys.**Isidore Newman Manual Training High School.**Rugby Academy.**St. Aloysius College.*

Warren Easton High School.

Opelousas—High School.

St. Martinsville—High School.

Shreveport—High School.

Tallulah—High School.

Vidalla—High School.

Washington—High School.

**Mississippi:**

Armory—High School.

Como—High School.

**Mississippi—Continued.**

Laurel—High School.

Meridian—High School.

Natchez—High School.

Washington—*Jefferson Military College.***Tennessee:**Columbia—*Military Academy.*

Lebanon—Castle Heights High School.

Martin—*McFerrin Training School.*

Memphis—High School.

**Texas:**

Beaumont—High School.

Bryan—*Allen Academy.*

Dallas—High School.

Denton—High School.

Dublin—High School.

Ennis—High School.

Fort Worth—High School.

Houston—High School.

San Antonio—High School.

Sherman—High School.

Victoria—High School.

Waco—High School.

**Schools in Maryland Accredited by St. John's College, March, 1916.**

	Units.
Entrance requirements.....	14
Prescribed units:	
Latin.....	4
English.....	3
Mathematics.....	3
History.....	2
Greek.....	1 1/2
Electives.....	1 1/2

Annapolis—High School.  
 Brunswick—High School.  
 Cambridge—High School.  
 Catonsville—High School.  
 Centerville—High School.  
 Charlotte Hall—*Academy.*  
 Chestertown—High School.  
 Crisfield—High School.  
 Cumberland—High School.  
 Denton—High School.  
 Easton—High School.  
 Elkton—High School.  
 Ellicott City—High School.  
 Frederick—High School.  
 Frostburg—High School.  
 Hagerstown—High School.  
 Havre de Grace—High School.

<sup>1</sup> For classical course.

La Plata—McDonogh Institute.  
 Laurel—High School.  
 Lonaconing—High School.  
 Millersville—*Anne Arundel Academy.*  
 Oakland—High School.  
 Port Deposit—*Jacob Tome Institute.*  
 Pocomoke City—High School.  
 Reisterstown—High School.  
 Rockville—  
*Academy.*  
 High School.  
 Salisbury—High School.  
 Sparrows Point—High School.  
 Snow Hill—High School.  
 Towson—High School.  
 Westminster—High School.

<sup>2</sup> For Latin-scientific course.**Schools outside of New England Accredited by Mount Holyoke College, March 23, 1916.**

(The schools in New England accredited by Mount Holyoke are those of the New England College Entrance Certificate Board. See p. —.)

	Units.
Admission requirements.....	14 1/2
Prescribed units:	
English.....	3
History.....	1
Latin.....	4
Mathematics.....	2 1/2
French, German, or Greek.....	2
Electives.....	2

**Alabama:****Montgomery—**

Lanier High School.

*The Margaret Booth School.***California:**

Berkeley—High School.

Claremont—High School.

Fowler—Union High School.

## California—Continued.

Los Angeles—*Marlborough School*.  
 Palo Alto—*Castilleja School*.  
 Pasadena—High School.  
 Riverside—Girls' High School.

## Colorado:

Boulder—State Preparatory School.  
 Denver—East Side High School.

## District of Columbia:

Washington—  
 Eastern High School.  
*Miss Madeira's School*.  
 M Street High School.  
*National Cathedral School for Girls*.  
 Western High School.

## Georgia:

Atlanta—  
*Washington Seminary*.  
*Woodberry Hall*.  
 Columbus—High School.

## Hawaii:

Honolulu—*Oahu College*.

## Idaho:

Blackfoot—High School.  
 Boise—*St. Margaret's Hall*.

## Illinois:

Alton—High School.  
 Anna—High School.  
 Champaign—High School.  
 Chicago—

Calumet High School.  
*The Faulkner School*.  
 Hyde Park High School.  
 Lake View High School.  
 Marshall High School.  
 Senn High School.  
*University High School*.  
*University School for Girls*.  
 Waller High School.

Chicago Heights—High School (Township).

Cicero—J. Sterling Morton High School.

Elgin—*Academy*.

Evanston—

*Academy*.

High School (Township).

Freeport—High School.

Galesburg—High School.

Godfrey—*Monticello Seminary*.

Harvey—Thornton Township High School.

Hinsdale—High School.

Kenilworth—New Trier Township High School.

Lake Forest—*Ferry Hall*.

Oak Park—High School (Township).

Peoria—*Bradley Polytechnic Institute*.

Princeton—High School.

Waukegan—High School (Township).

Winnetka—*The Gorton School*.

## Indiana:

Evansville—High School.  
 Greencastle—High School.  
 Indianapolis—Shortridge High School.  
 Hammond—High School.  
 Laporte—High School.  
 Princeton—High School.

## Iowa:

• Davenport—High School.  
 Des Moines—High School.  
 Maquoketa—High School.

## Kansas:

Kansas City—High School.

## Kentucky:

Danville—*Kentucky College for Women*.  
 Lexington—*Hamilton (Junior) College for Women*.  
 Louisville—Girls' High School.  
 Shelbyville—*Science Hill School*.

## Maryland:

Baltimore—Western High School.  
 Catonsville—*St. Timothy's School*.

## Michigan:

Adrian—High School.  
 Ann Arbor—High School.  
 Detroit—  
 Central High School.  
 Eastern High School.  
 Grand Rapids—Central High School.  
 Morenci—High School.

## Minnesota:

Bemidji—High School.  
 Duluth—Central High School.  
 Minneapolis—  
 Central High School.  
*Stanley Hall*.  
 St. Paul—Mechanic Arts High School.  
 Willmar—High School.

## Missouri:

Kansas City—*Miss Barstow's School*.  
 St. Louis—  
 Central High School.  
 Grover Cleveland High School.  
 McKinley High School.  
 Soldan High School.  
 Summer High School.  
 Yeatman High School.

## Nebraska:

Omaha—High School.

## New Jersey:

Asbury Park—High School.  
 Bernardsville—Bernards High School.  
 Bloomfield—High School.  
 Butler—High School.  
 Chatham—High School.  
 Cranford—High School.  
 Dover—High School.  
 East Orange—High School.  
 Elizabeth—  
 Battin High School.  
*Vail-Deane School*.  
 Flemington—High School.  
 Glen Ridge—High School.  
 Gloucester City—High School.  
 Hackensack—High School.  
 Hackettstown—*Centenary Collegiate Institute*.  
 Hammonont—High School.  
 Jersey City—Dickinson High School.  
 Lambertville—High School.  
 Matawan—High School.  
 Millville—High School.

## New Jersey—Continued.

Montclair—High School.  
 Morristown—High School.  
 Mount Holly—High School.  
 Newark—  
   Barringer High School.  
   *Prospect Hill School.*  
 New Brunswick—*The Misses Anable's School.*  
 Orange—High School.  
 Passaic—High School.  
 Paterson—*Hoover School.*  
 Perth Amboy—High School.  
 Plainfield—

  High School.  
   North Plainfield High School.  
 Princeton—High School.  
 Ridgewood—High School.  
 Roselle—High School.  
 Somerville—High School.  
 South Orange—Columbia High School.  
 Summit—High School.  
 Trenton—State Model High School.  
 Westfield—High School.  
 Wildwood—High School.

## New York:

Akron—High School.  
 Albany—  
   *Academy for Girls.*  
   High School.  
 Albion—High School.  
 Amsterdam—High School.  
 Aurora—*Wallcourt.*  
 Boonville—High School.  
 Bronxville—*Brantwood Hall.*  
 Brooklyn—  
   *Adelphi Academy.*  
   *Berkeley Institute.*  
   *Brooklyn Heights Seminary.*  
   Girls' High School.  
   *Packer Collegiate Institute.*

## Buffalo—

  Lafayette High School.  
   Masten Park High School.  
   *Seminary.*

Canajoharie—High School.  
 Carmel—*Drew Seminary.*  
 Cazenovia—*Seminary.*  
 Cohoes—Egberts High School.  
 Corning—Free Academy.  
 Dansville—High School.  
 Delevan—High School.  
 Dunkirk—High School.  
 East Hampton—High School.  
 Fairport—High School.  
 Florida—*S. S. Seward Institute.*  
 Flushing—High School.  
 Forestville—High School.  
 Fredonia—State Normal School (High School Department).  
 Glens Falls—High School.  
 Gloversville—High School.  
 Granville—High School.  
 Greenwich—High School.  
 Hancock—High School.  
 High Bridge—High School.  
 Hillsdale—High School.  
 Hudson—High School.

## New York—Continued.

Jamaica—High School.  
 Jamestown—High School.  
 Kingston—High School.  
 Lockport—High School.  
 Locust Valley—*Friends Academy.*  
 Mechanicsville—High School.  
 Middletown—High School.  
 Mount Kisco—High School.  
 Mount Vernon—High School.  
 New Brighton—Curtis High School.  
 Newburgh—Free Academy.  
 New Paltz—High School Department of State Normal School.  
 New Rochelle—High School.

## New York—

*Barnard School for Girls.*  
   Wadleigh High School.  
 Norwich—High School.  
 Olean—High School.  
 Oneonta—High School.  
 Ossining—*School.*  
 Patchogue—High School.  
 Pelham Manor—Pelham High School.  
 Perry—High School.  
 Pleasantville—High School.  
 Port Washington—High School.  
 Poughkeepsie—  
   High School.  
   *Putnam Hall School.*  
 Randolph—High School.  
 Richmond Hill—High School.  
 Rochester—  
   East High School.  
   West High School.  
 Roxbury—High School.  
 St. Johnsville—High School.  
 Seneca Falls—Mynderse Academy.  
 Sherburne—High School.  
 Springville—Griffith Institute and Union School.  
 Stamford—Seminary and Union Free School.  
 Suffern—High School.  
 Syracuse—  
   Central High School.  
   North High School.  
 Tarrytown—*The Knox School.*  
 Ticonderoga—High School.  
 Troy—  
   *Emma Willard School.*  
   High School.  
 Utica—Free Academy.  
 Walton—High School.  
 Waterville—High School.  
 Watkins—High School.  
 White Plains—High School.  
 Yonkers—High School.

## Ohio:

Ashland—High School.  
 Canton—High School.  
 Cincinnati—  
   Madisonville High School.  
   *Oakhurst Collegiate Institute.*  
 Cleveland—East High School.  
 Columbus—North High School.  
 Delaware—High School.  
 East Cleveland—Shaw High School.

## Ohio—Continued.

Glendale—*College*.

Hamilton—High School.

Medina—High School.

St. Marys—High School.

## Toledo—

Jesup W. Scott High School.

*Smead School*.

Waynesville—Wayne Township High School.

## Youngstown—

Rayen High School.

South High School.

## Pennsylvania:

Allentown—*The College for Women*.

Altoona—High School.

Beaver—High School.

Bellefonte—High School.

Bellevue—High School.

Birmingham—*School for Girls*.Bryn Mawr—*The Baldwin School*.

Butler—High School.

Chambersburg—*Penn Hall*.

Chester—High School.

Clearfield—High School.

Coudersport—High School.

Crafton—High School.

Danville—High School.

Erie—High School.

George School—*George School*.

Harrisburg—Central High School.

Holidaysburg—*Miss Coules's School for Girls*.

Honesdale—High School.

Kingston—*Wyoming Seminary*.Lancaster—*The Shippen School*.

Lansdowne—High School.

Lebanon—High School.

Lewiston—*Preparatory School*.

Nazareth—High School.

New Brighton—High School.

Oil City—High School.

Oxford—High School.

Pennsburg—*Perkiomen Seminary*.

## Philadelphia—

*Friends' Central School*.*Friends' Select School*.*Germantown Friends' School*.

High School for Girls.

*Miss Hill's School for Girls*.(Germantown) *Walnut Lane School*.

West Philadelphia High School for Girls.

William Penn High School.

## Pittsburgh—

Allegheny High School.

*Dikworth Hall*.

Peabody High School.

*Thurston Preparatory School*.*The Winchester School*.

## Pennsylvania—Continued.

Pottsville—High School.

Reading—High School for Girls.

Ridgway—Boro High School.

Scranton—Central High School.

Sewickley—High School.

Sharon—High School.

Swarthmore—

High School.

*The Mary Lyon School*.

Towanda—High School.

Tunkhannock—High School.

Warren—High School.

Washington—

High School.

*Seminary*.

Wellsboro—High School.

West Chester—

*Darlington Seminary*.

High School.

State Normal School.

Westtown—*Boarding School*.

Wilkinsburg—High School.

Williamsport—High School.

York—High School.

## South Dakota:

Sioux Falls—*All Saints School*.

## Tennessee:

Chattanooga—*Girls' Preparatory School*.

Knoxville—High School.

Pulaski—*Martin College*.

## Texas:

San Antonio—High School.

## Virginia:

Roanoke—*Virginia College*.Staunton—*Mary Baldwin Seminary*.

## Washington:

Olympia—High School.

## Seattle—

Broadway High School.

Queen Anne High School.

*Saint Nicholas School*.

## Spokane—

Lewis and Clark High School.

North Central High School.

Tacoma—Stadium High School.

## West Virginia:

Martinsburg—High School.

## Wisconsin:

Eau Claire—High School.

Grand Rapids—High School.

Kenosha—*Kemper Hall*.

## Milwaukee—

*Milwaukee-Downer Seminary*.

West Division High School.

## Schools outside of New England accredited to Wellesley College April, 1916.

(The schools in New England accredited by Wellesley College are those of the New England College Entrance Certificate Board. See p. —.)

	Units.
Admission requirements.....	15
Prescribed units:	
English.....	3
Mathematics.....	3
History.....	1
Latin.....	4
Electives.....	4

<b>Alabama:</b>	<b>Illinois:</b>
Birmingham—High School.	Aurora—West Side High School.
Montgomery— <i>Margaret Booth School.</i>	Chicago—
<b>Arkansas:</b>	Austin High School.
Fort Smith—High School.	Carl Schurs High School.
<b>California:</b>	Faulkner School.
Alameda—High School.	Francis W. Parker School.
Berkeley—	Hyde Park High School.
<i>Miss Head's School.</i>	<i>Illinois Woman's College Academy.</i>
High School.	<i>Kennwood Institute and Loring School.</i>
Corona—High School.	Lakeview High School.
Glendale—High School.	Latin School.
Los Angeles—	Lewis Institute.
<i>Girls' Collegiate School.</i>	Nicholas Senn High School.
High School.	Parker High School.
Manual Arts High School.	Stickney School.
Palo Alto— <i>Castilleja School.</i>	<i>University High School.</i>
San Bernardino—High School.	<i>University School for Girls.</i>
San Diego—	Wendell Phillips High School.
<i>Bishop School.</i>	Evanston—Township High School.
High School.	Godfrey— <i>Monticello Seminary.</i>
<b>Colorado:</b>	Joliet—High School.
Denver—	Kewanee—High School.
East High School.	Lake Forest— <i>Ferry Hall.</i>
North High School.	Maywood—Proviso Township High School.
South High School.	Mount Carroll— <i>Frances Shimer School.</i>
West High School.	Oak Park—Oak Park and River Forest Town-
<i>Miss Wolcott's School.</i>	ship High School.
Grand Junction—High School.	Peoria—High School.
Pueblo—High School.	Rockford—High School.
Salida—High School.	Rock Island—High School.
<b>Delaware:</b>	Wheaton—High School.
Wilmington— <i>Friends' School.</i>	Winnetka—
<b>District of Columbia:</b>	<i>Girton School.</i>
Washington—	New Trier Township High School.
Central High School.	<b>Indiana:</b>
Colonial School.	Connersville— <i>Elmhurst School.</i>
Eastern High School.	Crown Point—High School.
<i>Misses Eastman's School.</i>	Fort Wayne—High School.
<i>Holton Arms School.</i>	Indianapolis— <i>Tudor Hall.</i>
<i>Miss Madeira's School.</i>	Lafayette—High School.
<i>National Cathedral School.</i>	Marion—High School.
<i>Sidwell Friends' School.</i>	<b>Iowa:</b>
Western High School.	Burlington—High School.
<b>Florida:</b>	Council Bluffs—High School.
Jacksonville—Duval High School.	Davenport— <i>St. Katharine's Hall.</i>
<b>Georgia:</b>	Des Moines—
Atlanta—	North High School.
Girls' High School.	West High School.
<i>Washington Seminary.</i>	Dubuque—High School.
<b>Hawaii:</b>	Maquoketa—High School.
Honolulu— <i>Oahu College.</i>	Marshalltown—High School.
<b>Idaho:</b>	Red Oak—High School.
Boise—High School.	Sigourney—High School.
	Sioux City—High School.

**Kansas:**

Hutchinson—High School.  
 Kansas City—High School.  
 Topeka—  
   *College of Sisters of Bethany.*  
   High School.  
 Wichita—High School.

**Kentucky:**

Ashland—High School.  
 Danville—*Kentucky College for Women.*  
 Louisville—  
   *Collegiate School.*  
   Girls' High School.  
   *Kentucky Home School for Girls.*  
 Shelbyville—*Science Hill School.*

**Louisiana:**

New Orleans—Newcomb High School.

**Maryland:**

Baltimore—  
   *Friends School.*  
   *Girls' Latin School.*  
   Western High School.  
 Reisterstown—*Hannah More Academy.*

**Michigan:**

Ann Arbor—High School.  
 Battle Creek—High School.  
 Cadillac—High School.  
 Calumet—High School.  
 Detroit—  
   Cass High School.  
   Central High School.  
   *Liggett School.*  
 Grand Haven—*Akeley Hall.*  
 Hancock—High School.  
 Houghton—High School.  
 Kalamazoo—Central High School.  
 Lansing—High School.  
 Saginaw—East Side High School.  
 St. Johns—High School.

**Minnesota:**

Duluth—Central High School.  
 Faribault—*St. Mary's Hall.*  
 Minneapolis—  
   Central High School.  
   East High School.  
   *Stanley Hall.*  
   West High School.  
 St. Paul—  
   Central High School.  
   *Miss Loomis' School.*  
   *Oak Hall.*

**Mississippi:**

Natchez—*Stanton College.*

**Missouri:**

Ferguson—High School.  
 Kansas City—  
   *Miss Barstow's School.*  
   Central High School.  
   Manual Training High School.  
   Westport High School.  
 St. Charles—*Lindenwood College Academy.*  
 St. Louis—  
   Central High School.  
   Grover Cleveland High School.  
   *Hoerner Hall.*  
   *Mary Institute.*  
   Soldan High School.  
 Webster Groves—High School.

**Montana:**

Lewistown—Fergus County High School.  
 Missoula—High School.

**Nebraska:**

Lincoln—High School.  
 Omaha—  
   *Brownell Hall.*  
   High School.  
 Wayne—High School.

**New Jersey:**

Asbury Park—High School.  
 Atlantic City—  
   *Armitage School.*  
   High School.  
 Bernardsville—*St. John Baptist School.*  
 Bloomfield—*High School.*  
 Boonton—*St. John School.*  
 Bridgeton—*Ivy Hall.*  
 Cape May Court House—Middle Township High School.  
 Clayton—High School.  
 Cranford—High School.  
 East Orange—High School.  
 Englewood—  
   *Dwight School.*  
   High School.  
 Glen Ridge—High School.  
 Hackensack—*Centenary Collegiate Institute.*  
 Hightstown—High School.  
 Jersey City—  
   *Bergen School.*  
   William L. Dickinson High School.  
 Leonia—High School.  
 Madison—High School.  
 Metuchen—High School.  
 Millburn—High School.  
 Montclair—High School.  
 Newark—

Barringer High School.  
 Central Commercial and Manual Training High School.  
 South Side High School.

New Brunswick—*Miss Anable's School.*  
 Orange—*Dearborn-Morgan School.*  
 Passaic—High School.  
 Paterson—*Collegiate Institute.*  
 Plainfield—High School.  
 Princeton—High School.  
 Ridgewood—High School.  
 Rutherford—High School.  
 Summit—

High School.  
*Kent Place School.*

Trenton—State Model High School.  
 Westfield—Washington High School.  
 West Hoboken—Emerson High School.  
 West Orange—High School.  
 Woodbury—High School.

**New York:**

Albany—  
   *Academy for Girls.*  
   High School.  
   Milne High School.  
   *St. Agnes School.*  
   State Normal College.  
 Albion—High School.  
 Amityville—High School.  
 Amsterdam—High School.

## New York—Continued.

Auburn—High School.  
 Aurora—*Wallcourt School*.  
 Ballston Spa—High School.  
 Batavia—High School.  
 Binghamton—Central High School.  
 Brooklyn—  
   *Adelphi Academy*.  
   *Brooklyn Heights Seminary*.  
   Erasmus Hall High School.  
   Girls' High School.  
   Manual Training High School.  
   *Packer Collegiate Institute*.  
 Buffalo—  
   *Seminary*.  
   Central High School.  
   Lafayette High School.  
 Cambridge—High School.  
 Carmel—*Drew Seminary for Young Women*.  
 Catskill—High School.  
 Chatham—Union School.  
 Chautauqua—High School.  
 Clinton—High School.  
 Courtland—State Normal School.  
 Dobbs Ferry—*Misses Masters' School*.  
 Elmira—Free Academy.  
 Flushing—High School.  
 Fulton—High School.  
 Garden City—*St. Mary's School*.  
 Gloversville—High School.  
 Hoosic Falls—High School.  
 Islip—High School.  
 Ithaca—High School.  
 Jamaica—High School.  
 Jamestown—High School.  
 Johnstown—High School.  
 Kingston—Free Academy.  
 Larchmont Manor—*Manor School*.  
 Liberty—High School.  
 Luzerne—Hadley-Luzerne High School.  
 Mamaroneck—Rye Neck High School.  
 Moravia—High School.  
 Mount Vernon—High School.  
 New Brighton—Curtis High School.  
 New Paltz—Normal School.  
 New Rochelle—High School.  
 New York—  
   *Benjamin School for Girls*.  
   *Ethical Culture School*.  
   *Friends' Seminary*.  
   *Horace Mann School*.  
   Hunter High School.  
   Morris Heights High School.  
   *St. Agatha School*.  
   *Miss Spence's School*.  
   *Velten School*.  
   Wadleigh High School.  
 Oneida—High School.  
 Oneonta—High School.  
 Peekskill—Drum Hill High School.  
 Plattsburg—High School.  
 Rensselaer—High School.  
 Roxbury—High School.  
 Richmond Hill—High School.  
 Rochester—  
   *Columbia School*.  
   East High School.  
   West High School.

## New York—Continued.

Rye—*Seminary*.  
 Saratoga Springs—High School.  
 Sangerites—High School.  
 Scarsdale—*Lockwood Collegiate School*.  
 Schenectady—High School.  
 Syracuse—  
   Central High School.  
   *Goodyear-Burlingame School*.  
 Tarrytown-on-Hudson—*The Knox School*.  
 Troy—*Emma Willard School*.  
 Utica—Free Academy.  
 Watertown—High School.  
 Waverly—High School.  
 West Hebron—Union School.  
 White Plains—High School.  
 Yonkers—High School.

## Ohio:

Akron—Central High School.  
 Ashland—High School.  
 Ashtabula—High School.  
 Bellevue—High School.  
 Canton—Central High School.  
 Cincinnati—  
   *College Preparatory*.  
   Hughes High School.  
   Madisonville High School.  
   *Oakhurst Collegiate School*.  
   *University School*.

## Walnut Hills High School.

Cleveland—  
   Central High School.  
   Glenville High School.  
   *Hathaway-Brown School*.  
   Shaw High School.  
 Columbus—  
   *Columbus School for Girls*.  
   East High School.  
   North High School.  
 Coshocton—High School.  
 Dayton—Steele High School.  
 East Cleveland—High School.  
 Elyria—High School.  
 Hamilton—High School.  
 Lima—High School.  
 Medina—High School.  
 Oberlin—*Academy*.  
 Piqua—High School.  
 Sandusky—High School.  
 Toledo—  
   Central High School.  
   Scott High School.  
 Xenia—High School.  
 Youngstown—  
   Rayen High School.  
   South High School.

## Oregon:

Portland—  
   *Academy*.  
   Lincoln High School.

## Pennsylvania:

Allegheny—High School.  
 Altoona—High School.  
 Beaver Falls—High School.  
 Bellefonte—High School.  
 Ben Avon—High School.  
 Berwyn—Tredyffrin-Easttown High School.

## Pennsylvania—Continued.

Bethlehem—  
*Moravian Parochial School.*  
*Moravian Seminary.*  
 Bradford—High School.  
 Bryn Mawr—  
*Baldwin School.*  
*Miss Shipley's School.*  
*Miss Wright's School.*  
 California—South Western Normal School.  
 Canton—High School.  
 Carbondale—High School.  
 Chester—High School.  
 Clearfield—High School.  
 Connellsville—High School.  
 Crafton—High School.  
 Du Bois—High School.  
 Easton—High School.  
 Franklin—High School.  
 George School—*George School.*  
 Greensburg—High School.  
 Harrisburg—High School.  
 Indiana—State Normal School.  
 Jenkintown—*Beckwood School.*  
*Kingston—Wyoming Seminary.*  
 Lancaster—*Shippen School.*  
 Lansdowne—High School.  
 McKeesport—High School.  
 Munhall—High School.  
 Oakmont—High School.  
 Overbrook—*Miss Sayward's School.*  
 Philadelphia—  
*Friends' Central School.*  
*Friends' Select School.*  
*Germantown Friends' School.*  
 Germantown High School.  
 Girls' High School.  
*Miss Hill's School.*  
*Temple University.*  
 William Penn High School.  
 Pittsburgh—  
 Central High School.  
*Dilworth Hall.*  
 Edgewood High School.  
 Peabody High School.  
*Thurston Preparatory School.*  
*Winchester School.*  
 Pottsville—High School.  
 Punxsutawney—High School.  
 Ridgway—High School.  
 Scranton—Central High School.  
 Sharon—High School.  
 South Bethlehem—*Bishopthorpe Manor.*  
 Swarthmore—  
 High School.  
*Mary Lyon School.*  
 Washington—*Seminary.*  
 West Chester—  
*Darlington Seminary.*  
 High School.

## Pennsylvania—Continued.

West Philadelphia—Girls' High School.  
 Westtown—*Boarding School.*  
 Wilkes-Barre—  
 High School.  
*Institute.*  
 Wilkesburg—High School.  
 Williamsport—  
*Dickinson Seminary.*  
 High School.  
 South Carolina:  
 Charleston—*Ashley Hall.*  
 South Dakota:  
 Aberdeen—High School.  
 Rapid City—High School.  
 Sioux Falls—  
*All Saints' School.*  
 Washington High School.  
 Tennessee:  
 Chattanooga—  
*Girls' Preparatory School.*  
 Nashville—*Ward-Belmont Seminary.*  
 High School.  
 Texas:  
 Dallas—*Misses Holley's School.*  
 El Paso—  
 High School.  
*School for Girls.*  
 Utah: Houston—High School.  
 Ogden—High School.  
 Virginia:  
 Chatham—*Episcopal Institute.*  
 Roanoke—*Virginia College.*  
 Staunton—*Mary Baldwin Seminary.*  
 Washington:  
 Ritzville—High School.  
 Seattle—  
 Broadway High School.  
 Franklin High School.  
 Queen Anne High School.  
 Spokane—  
*Brunot Hall.*  
 Lewis and Clark High School.  
 Tacoma—  
*Annie Wright Seminary.*  
 Stadium High School.  
 Walla Walla—*St. Paul School.*  
 West Virginia:  
 Huntington—*Marshall College.*  
 Wisconsin:  
 Appleton—High School.  
 Ashland—High School.  
 Beaver Dam—*Wayland Academy.*  
 Fond du Lac—*Grafton Hall.*  
 Kenosha—*Kemper Hall.*  
 Madison—High School.  
 Milwaukee—  
 East Division High School.  
*Milwaukee-Downer Seminary.*  
 Superior—High School.



**Private Secondary Schools in Maryland and Pennsylvania (not Listed Elsewhere in the Bulletin) Belonging to the Association of Colleges and Preparatory Schools of the Middle States and Maryland and having the Privilege of Certificating their Graduates to Various Colleges of High Standing.**

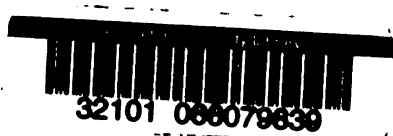
**Maryland:****Baltimore—***Arundell School for Girls.**Bryn Mawr School.**Roland Park—Gillman Country School.***New York:***Mohegan—Mohegan Lake School.***New York—***Alcuin Preparatory School.**Bresley School.**Collegiate School.**Franklin School.**Loyola School.**St. Agatha.***Poughkeepsie—***Riverview Academy.***Pennsylvania:***Allentown—Preparatory School.**Haverford—School.**Lancaster—Yeates School.**Lititz—Linden Hall Seminary.**Mercersburg—Academy.***Philadelphia—***Agnes Irwin School.**Chestnut Hill Academy.**Germantown Academy.**Holmes School for Girls.**Maher Preparatory School.**Northeast High School for Girls.**(Chestnut Hill)—Springdale.**Pottstown—Hill School.**Wayne—St. Luke's School.**York—Collegiate Institute.*

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